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Investing for Profit

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"Psychology of the Stock Market," "The Machinery of Wall Street," "A B C of Bond Buying," Etc.

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PREFACE

HE following chapters first appeared as a series of articles in The Magazine of Wall Street. They were later republished in book form in response to a considerable demand for information of this character.

The reception accorded the first and second editions was such as to make necessary the printing of this, the third edition, which has

been carefully revised.

The first two editions contained a discussion of "When to Buy and Sell as Shown by the New York Bank Statement." Because of the great changes in banking conditions as a result of the Federal Reserve System, the effect of the war in expanding loans based on Government paper, etc., the methods there explained are no longer applicable in the same way. Moreover, the relation between money and stocks has been adequately handled in another book published by The Magazine of Wall Street—"Tidal Swings of the Stock Market," by Scribner Browne—to which the reader is referred.

Other matter of equal importance has been added to take the place of those chapters.

G. C. SELDEN.

New York, May, 1919.



CHAPTER I

SOME UNDERLYING PRINCIPLES

INVESTMENT is defined as "the placing of capital in a more or less permanent way, mainly for the income to be derived therefrom."

In the very nature of the case the definition of investment cannot be rigid and clear-cut, because the idea itself is not rigid or clear-cut. Like nearly all the terms used in finance or in the marketplace, the word is used in a variety of ways and has several gradations of meaning:

(1) The placing of capital for income only, the risk of loss being so slight as to be almost negligible. The income from such an investment is necessarily small, because the element

of risk is nearly eliminated.

(2) The placing of capital for income, but in a security which contains a slight possibility of loss—or a "business man's risk," as it is commonly called. In this case, the investor depends to a certain degree upon his knowledge of financial or business conditions in forming his opinion as to the safety of his in-

vestment. He therefore obtains a somewhat higher rate of interest, the additional per cent. being in payment for additional risk or for the degree of judgment which he has exercised in making the purchase.

(3) The placing of capital for income, but also with the expectation of an increase in the value of the principal—in other words, invest-

ment for profit as well as for interest.

Whether investment for profit should be called a science or an art is a mere quibble over words. Investment for income is commonly called a science, and scientific principles may certainly be applied to investment for profit, but in its main features it might perhaps better be called an art.

It is doubtful whether the intelligent investor for profit, who works on sound principles and with deliberate judgment, takes any greater risk than the investor described under (2) above, who accepts the business man's risk.

For example, in 1902 Minneapolis & St. Louis 1st & Refunding 4's of 1949, selling at 106, were considered at least a business man's risk, if not better, yet they dropped to 61 in 1912; while American Beet Sugar preferred, paying 6 per cent. and selling around 80 in 1902, would have been ranked somewhere between a busi-

ness man's risk and a speculation, yet in 1912 it was selling at par, after having yielded 7½ per cent. interest during the entire 10 years on an investment made at 80.

It is sound judgment and adequate knowledge of essential facts that command large income returns, whether in the investment busi-

ness or any other business.

This example also illustrates another important fact, namely, that the careful investor for profit often gets, in addition to his profits, a larger income return than the investor for income only. This is because the securities which are most likely to increase in value are generally those of growing companies and have not yet become "seasoned." For this reason such securities sell at a low price compared with their interest or dividend rates.

The investor for profit does not primarily aim at a high interest yield. He tries to get merely an ordinary income return, coupled with an increase in value. But he is likely to find himself, without any special intention, receiving a relatively high rate of interest in addition.

The distinction between investing for income and investing for profit is not so great as might at first appear. The first consideration in an investment for income is usually said to be safety. This means, of course, safety against the loss of any part of the principal. But this includes a consideration of future prices, just as truly as though the investment had been made with the expectation of an increase in value.

The investor for profits tries to select a security that will grow, while the investor for income tries to select one that will not shrink.

The difference is in degree rather than in kind. The element of risk can never be entirely eliminated. Even if we were to assume that the U.S. Government is indestructible, so that the holder of a Government bond is certain to receive the full par value of the bond at maturity, there is still to be considered the risk involved in the changing value of money. A rise in the cost of living means a fall in the value of money, and consequently a shrinkage in the real value of the bond, which can only be truly measured by what the bond will buy.

This view of the matter has been forced home upon investors within the past few years by the rapid rise in all prices. Investors have supposed that they were taking little or no risk because for every \$1,000 invested they were sure to get back \$1,000 at maturity of the obligation. They have awaked to discover that the

\$1,000 at maturity would buy less than twothirds as much of any useful or desirable article as when the investment was made.

Safety, then, can never be absolute; it is a question of degree. The investor for profit seeks a growing margin above the line of safety which will yield him additional capital. The investor for income only must likewise study to avoid any shrinkage below the line of safety which will encroach upon his principal.

There are many who look upon the art of investing for profit as a mysterious and difficult "knack." They say of an unusually successful man, "He is a natural money-maker," or "Ev-

erything he touches turns to money."

Perhaps one-tenth of the returns obtained by a successful investor for profit should be charged to natural bent or talent for money-making; but the other nine-tenths would certainly be found to be due to his first learning the business, then making a careful and painstaking investigation of every proposition before putting capital into it, studying all the conditions surrounding the business of the company, comparing prices with conditions, and in general applying to the investment the same degree of thought, caution and mature consideration that he would apply to the active manage-

ment of any business enterprise in which he

was engaged.

How many losing investors can truthfully say that they have done all this? In ninetynine cases out of one hundred they invested "on the recommendation of a friend," or on the strength of alluring advertising matter, or because of some half-considered notion, never carefully investigated, or for some other equally inadequate reason.

Only three qualifications are necessary in

order to learn the art of investing for profit:

(1) Ordinary common sense.

(2) Willingness to make industrious and constant use of your powers of observation, reasoning and inquiry.

(3) Patience to go slowly until actual experience has confirmed the soundness of your

judgment and of your methods.

These three requirements are not easy, but they are not dependent upon any special talent and they are within the reach of most persons who are willing to make an effort proportionate to the results they hope to achieve.

As to the opportunities for this kind of investment, they are almost innumerable. The inexperienced investor is likely to argue with

himself somewhat as follows:

"Look at the millions of dollars owned by great capitalists or piled up in banks awaiting good opportunities for investment. A large part of this money belongs to men who are themselves directors in the big corporations, or to bankers who know every development in all the money markets of the world. What chance have I in comparison with these men? They are bound to skim the cream from every proposition before they let us little fellows in. They simply use us to unload on when they want to stand from under."

Now there is a point of view from which this is at least partly true. The great banking and corporation interests certainly have better opportunities for knowing future developments than the average small investor and they will usually be able to get more profitable results.

But the special advantages of the large investor as compared with the small are very much overestimated. The most essential facts in regard to the money market and the condition of important corporations are public property. Certain companies pursue a policy of secrecy, and these the outside investor must leave severely alone; but so far as the big railroads and many of the important industrials

of this country are concerned, the main facts about their condition, earnings and prospects are spread broadcast. An officer or director may have more exact knowledge than the public as to the date on which a dividend will be raised or lowered, but the public may, if it wishes, know very nearly as much as he about the earnings which underlie the dividend-and that, after all, is the important thing.

Moreover, the fact that leading banking interests can make their money earn a larger return than you can get on yours, does not prevent you from making a moderate profit. They are a long way from usurping the entire field.

There is still plenty of room left for you.

Facts are the best answer to this argument of the pessimist. For example, in 1903 United States Steel preferred sold at 49%. It was then paying and has continuously paid ever since 7 per cent. on par or over 14 per cent. on a price of 49%. In 1909 it sold at 131.

If inside interests knew all the facts and had abundant capital, why didn't they buy all the Steel preferred that was offered between 50 and 60? Why was the small investor given the opportunity to pick up this bonanza at 50? Similar examples might be taken from the history of any well known stock or bond.

Whatever advantages inside interests may have compared with the ordinary investor, there are plenty of opportunities left over for him.

While there are many different kinds of securities, which vary in innumerable details in regard to legal rights of the holder and the exact character of the obligation, all may be in-

cluded under three general heads:

(1) Promises to pay, such as bonds, mortgages, notes, or loans on collateral. All of this class of securities entitle the holder to a specified amount of cash at a certain fixed future date,* with interest at a predetermined rate, payable at regular intervals throughout the term of the security.

(2) Equities, representing a fractional part of the ownership of the company. The English term for these, shares, expresses their standing accurately. In America such securi-

ties are commonly called stocks.

(3) Convertible securities, which may be changed from one of the above forms to the other under certain conditions which are specified in the face of the security.

It is to be noticed that the character of a security is not always fairly indicated by its

^{*}A few bonds have no date of maturity, but remain permanently outstanding.

name. Income bonds, for example, are entitled to interest only when earned. If the income of the company is sufficient to pay the interest on such bonds, it is paid; but if the interest cannot be paid, this does not necessarily throw the company into the hands of a receiver, as would be the case if the interest on any other bonds were defaulted.

Likewise the debenture bond is practically nothing but a note, as it carries no lien on any specified property of the company, but is merely a general obligation. When such a bond runs for a short term only, it is called a note in

the ordinary parlance of the Street.

In the case of a guaranteed stock, it is necessary to ascertain just what the guarantee covers; but in most cases such a stock is equivalent in safety to a debenture bond except that

it has no date of maturity.

Equipment bonds deserve special notice, because they are really stronger than their name indicates. The security behind them consists of specified railroad equipment, as locomotives, cars, etc. The company might go into the hands of a receiver without affecting the security of these bonds, as that depends solely upon the equipment. A certain fraction of such an issue of bonds is retired each year,

while the railroad usually obligates itself to keep the equipment in good repair and to replace such as may be worn out or damaged within the term of the bonds. Hence the amount of bonds outstanding keeps decreasing in proportion to the security behind them.

Since the investor for profit desires to select securities that will increase in value, he will be chiefly interested in stocks and in bonds or notes which are selling below par. It is rare that he will wish to purchase bonds above par, because the possibilities of higher prices for such securities are very limited.

Equipments or any kind of serial bonds selling below par are especially attractive because the bonds to be retired each year are usually drawn by lot, so that each holder has a chance of getting par for his bonds whenever any are retired.

The investor for profit must select securities which have a ready market. When he sees a good profit in his investment, he wishes to be able to take it without sacrificing two or three points because of difficulty of finding a buyer at the moment.

CHAPTER II.

DISTRIBUTION OF INVESTMENTS FOR PROFIT

NE of the standard warnings commonly given to the investor is that he should never "put all his eggs in one basket."

On the other hand, Andrew Carnegie, who may be supposed to know a thing or two about investment, has revised this adage to read, "Put all your eggs in one basket and then watch the basket."

Mr. Carnegie has the very great advantage of having made a phenomenal success of his method, but it is to be observed that he did so by watching the basket very closely indeed. He did not set the basket on a wall and say, "That looks pretty safe—I'll just step over in the back lot and pick a few strawberries."

None of that for canny Andrew. He hung onto his basket with both hands. Not even a circus parade could distract his attention from

that precious basket.

The ordinary investor does not have the opportunity of watching the basket as carefully as it needs to be watched if all the eggs are to be put in it. An example of this occurred some years ago when a large part of the funds of the Johns Hopkins University was invested in Baltimore & Ohio stock. Undoubtedly the trustees of the university thought they knew the situation of that railroad and that the investment was entirely safe. Yet Baltimore & Ohio went into the hands of a receiver and the work of the university was for a time seriously crippled. Fortunately the embarrassment of the company was only temporary, and after reorganization it soon regained its standing.

As a general rule, therefore, it is decidedly better for the investor for profit to distribute his holdings among a number of different securities. This distribution will ordinarily come about in an entirely natural way, as the investor sees first one opportunity and then another of which he wishes to take advantage. When a certain amount of his capital becomes available for reinvestment, he begins to look for a suitable security and it will usually not be long before something turns up suited to

his purpose.

The average man will not care to invest all his surplus funds for profit; he will wish to hold part of them as a sort of reserve by investing that part for safety only, without consideration of any possible profit above ordinary interest rates.

An excellent plan is to divide your capital into two equal parts, a "reserve fund" and a "profit fund." The reserve fund is permanently placed with a view to safety of both principal and interest. The investor does not expect to encroach upon this reserve fund unless in case of unexpected disaster, illness or something of the sort.

In placing this reserve fund, interest returns will receive only secondary consideration. The investor will expect to get only the current rate of interest available in cases where the element of risk is so far as possible eliminated. At present that rate would be five per cent. or more.

Government and standard corporation bonds and mortgages afford a natural outlet for the investment of such a reserve. For those not wishing to assume the responsibility of arranging and managing an ordinary real estate mortgage, guaranteed mortgages are easily available. Any good bond house will recommend a suitable list of conservative bonds. For very small sums, the savings banks and good local building and loan associations are often the most convenient.

With one-half of your capital thus securely provided for, you are then free to invest the other half so as to secure, if possible, a profit in addition to ordinary interest. As such profits accumulate you will transfer half of them to your reserve fund, so as to keep the proportion between your two divisions about equal.

You are not warranted in taking any more risk on profits than on your original capital. It seems to be a common failing to risk profits in some highly speculative venture where the investor would not have thought of placing his original capital. There is no logic in this. All money is alike, no matter how you come by it.

The next question is, how shall the investor distribute that part of his fund which he set aside to invest for profit? Shall all this be put into stocks, or some into bonds? Shall he divide it between preferred and common stocks, or between railroads and industrials, or in

some other way?

It is of interest to see how some of the men who have accumulated great wealth through successful investment have divided their capital. An instance of special value is found in the investments of the late Marshall Field of Chicago. He was one of the wealthiest merchants in the country and was well known for his safe and conservative methods of doing business and of handling capital. He died suddenly, leaving his investments just as he had arranged them in the expectation of continued activity. A careful study of his estate was made by E. S. Meade, of the University of Pennsylvania, and is on record.

Mr. Field's investments totaled over \$43,000-000 and were as shown in the table herewith:

MARSHALL FIELD'S INVESTMENTS

Money	\$4,301,378
Open Accounts	9,280,084
Syndicate subscriptions	1,616,450

Notes:

High grade commerci	al
paper	.\$1,500,000
Miscellaneous notes.	. 818,269— 2,318,269

Bonds:

Gov., State and muni	ci-
pal	\$472,500
Railroad	3,888,000
Public Service	1,502,000
Industrials	

Stocks:

Marshall Field & Co\$3,400,000
Industrials 3,291,950
Railroads 8,336,200
Public service corpora-
tions 1,431,650
Banks and trust Cos 809,510
Miscellaneous 891,000—18,160,310
Grand total\$43,069,524

The open accounts resulted from his business connections, being almost entirely composed of a debt of Marshall Field & Co. and of money advanced to the Field Museum. The syndicate subscriptions were the leavings of various underwritings, and have no special interest for the investor.

The investments in bonds were all of a highly conservative character. It will be noticed that only a small amount of industrial bonds were included, and the quantity of municipal bonds was even smaller. The first were evidently avoided because of undesired risks, and the second on account of the small yield.

The investment in Marshall Field & Co. was of course of a special character and was undoubtedly profitable. The other industrial stocks were all those of prosperous companies and were practically all dividend payers, with the exception of \$1,494,000, which was equally divided between the preferred and common stocks of certain of the newer industrials. These were evidently the leavings of syndicate subscriptions, and it is probable that the common stocks cost Mr. Field but little. Practically all of these companies have since become prosperous, although some of them were slow in reaching that condition.

The investments in railroad stocks were divided between the preferred and common stocks of eighteen of the principal railroads of the United States. Nearly all were dividend

payers.

His public service corporation holdings were mostly of Chicago Edison and of the Chicago Elevated Railways. It is highly probable that these were secured by participation in the original underwritings.

Holdings of bank and trust company stocks were relatively small but highly profitable. Probably many of them were acquired years before, and under more favorable conditions than such purchases could now be made.

If we eliminate, so far as possible, Mr. Field's direct business and personal relations and his participations in underwritings, we find about half his fortune invested in commercial paper and in railroad and industrial stocks and bonds, as follows:

Commercial paper Railroad bonds Railroad stocks Industrial bonds Industrial stocks	3,888,000 8,336,000 928,000	12% 21% 44% 5% 18%
Total	\$18,761,000	100%

But a part of the industrial common stocks were doubtless acquired at merely nominal

prices.

Of course, no profit above interest was expected on the commercial paper and, in view of the character of the bonds included, this statement was evidently true of nearly all of the bonds also. Bonds can be selected which contain a possibility or probability of profit in addition to interest, but hardly any bonds of this character were found in the Field Estate.

On the other hand, it is highly probable that Mr. Field hoped for a natural increase in value in addition to interest on nearly all of the stocks which he owned. The growth of the country would tend to bring this on the railroad stocks, and the industrials were of a character to indicate this expectation on his

part.

We may say roughly, then, that about 38 per cent. of the above investment fund was placed with a view to interest return only, while the remaining 62 per cent. contemplated also the probability of an additional profit. Such a distribution of investments was conservative for a man of Mr. Field's wealth. Undoubtedly most millionaire capitalists place a larger proportion of their money in more speculative channels. Perhaps they are induced to do this by the feeling that even if the whole of any investment should be lost they will have plenty left.

For the smaller investor the conservative course is the only safe one, and he could scarcely go wrong by imitating the general plan followed by Chicago's most successful mer-

chant.

In considering this question of distribution of investments for profit, it may be asked

whether there are certain lines of business which should be favored and certain others which may well be avoided. Are the opportunities better in some kinds of business than in others?

There is room for a great deal of shrewdness and judgment in the interpretation of public tendencies, wants and tastes. Bell Telephone is the commonly mentioned example of a stock which could have been bought for a song by the investor who was far-sighted enough to see the possibilities of the invention. The telephone was at first regarded as merely a curious toy. The man who then foresaw its general business use would have been esteemed a wild and visionary enthusiast.

Doubtless never a year passes by without the appearance of extraordinary opportunities for the investor who can combine sound judgment with an active imagination; but those having this combination of talents are very few, and most of the so-called investments whose promoters appeal to the imagination result in disaster to the holders of the securities.

As a general thing it is best to stick to established companies and avoid promotions. It is the rule rather than the exception that

a new business enterprise has to go through receivership before getting on a permanently sound basis. "Getting in on the ground floor"

is apt to prove a gamble.

The ordinary investor for profit should either avoid mining enterprises entirely or put into mining stocks only a small fraction of his capital. This is because there is always doubt as to the future of mine. Its assets are hidden away in the earth where they can only

be guessed at.

An exception should perhaps be made of the porphyry copper companies, whose ore lies so close to the surface of the ground that it can be estimated with considerable precision. Coal mining also is on a different basis from the precious metals, as some of the big companies have such extensive holdings of coal lands that supplies are secure for many years ahead.

Transportation stocks are especially to be recommended to the investor for profit, because it is usually not very difficult to form some idea of the probable growth of the territory in which they are located. A new country, with great natural resources, is bound to develop as population grows, and for that reason the securities of its best transportation companies

will have good prospects. On the other hand, in the older sections the greatest growth will be in industrial enterprises, as transportation

has already been well provided for.

Among industrial companies, those whose products enter into wide and general consumption are to be preferred to those manufacturing articles for an exclusive trade or for a few large consumers, as the latter will be more subject to the caprices of fashion, to interference by new inventions and to the ups and downs of business activity.

Public service corporations, such as street railways, electric companies, gas and water companies, etc., are, like transportation compnies, subject to the growth of the communities in which they are located. In the the past they have sometimes suffered from unexpected competition, which had either to be met or bought off. That era is undoubtedly past for good and municipal control is now the chief danger to profits. As a rule, however, it may be assumed that such control will be reasonably exercised.

In the last few years both transportation and public utility companies have had to meet unusual difficulties because their costs have risen greatly while the rate increases granted them have been much smaller. This is a temporary condition, due largely to the unexpected changes resulting from the war.

CHAPTER III

WHEN SHOULD BONDS BE BOUGHT FOR PROFIT?

HILE either bonds or stocks may be bought for profit as well as for interest or dividends, the opportunities for this form of investment are naturally fewer in bonds than in stocks. Under ordinary circumstances the stock of a corporation bears the burden of risk, and as a compensation it also has all the chances of increased profits.

Interest on the bonds must be paid as long as the corporation is solvent, but is fixed at a definite rate for the entire term of the bond. Dividends on the common stock may be discontinued whenever necessary or desirable, but they may likewise be increased to any de-

sired rate.

Such a legal division of risks and income naturally limits the possibilities of profit on the bonds, since they can never participate in the prosperity of the company beyond their fixed rate of interest.

An effort to straddle the situation is often made by issuing convertible bonds, which bear a fixed rate of interest but may be turned into stock at a specified price. Such bonds are especially desirable from the point of view of the investor for profit, because his interest and principal are more secure, while at the same time the price of his bonds will follow the stock in any advance above the conversion limit; but this very desirability is often discounted in the price, so that it may be difficult to buy convertible bonds low enough to suit. Such issues are always worthy of careful watching, however.

On the other hand, the investor for profit will often prefer bonds to stocks, because his principal is assured at maturity—provided, of course, the company remains solvent. If his bonds were well selected in the first place, he need not be disturbed by any decline in price. The worst that could happen to him under such circumstances would be that he might have to hold his bonds, receiving the interest thereon, until maturity or until improved financial conditions brought the price up again. This fact might contribute to the investor's peace of mind in times of unexpected trouble—a point always worthy of consideration.

Morever, there is usually a time in the development of any business enterprise when the

bonds afford the investor for profit a better opportunity than either preferred or common stock—better because safer and because including assured interest as well as possibilities of profit.

The investor will often ask, "Should I confine myself entirely to listed bonds or should I consider also especially attractive issues of

unlisted bonds?"

The answer must be that he should confine himself to bonds having a fairly active and satisfactory market, whether listed or unlisted. The mere fact of listing is of little value, except as guaranteeing the legality of the bonds, and in nearly all cases this can be easily ascertained in regard to any unlisted bond also. Otherwise, an inactive listed bond has no advantage over an inactive unlisted bond. As a rule, listed bonds are likely to have a better market than unlisted, other things being equal; but the question of a good market is the one to be considered regardless of listing.

Large and well-known corporations, whose business and accounts receive the fullest publicity, are especially desirable in investing for profit, and their bonds will usually be listed and will naturally be found to have a satis-

factory market.

In buying any bond, the first subject to be considered is security. In investigating this, the situation of the company as a whole must be gone over. The personnel of the management, the affiliations of the corporation with other companies, property owned, total bonded indebtedness, capitalization and its relation to income, the physical condition of the property, are all to be looked into carefully. This information may be easily obtained from various monthly and yearly manuals.

The most important consideration is the company's "margin of safety" above all its interest requirements, or the excess of yearly earnings applicable to its bonds above what it has obligated itself to pay. Earnings are more important than assets, because the assets behind a bond generally get the greater part of their value from their connection with the

company as a going concern.

The next question is the rank of the bond, or its priority of claim as compared with other issues by the same company. The general principles in regard to the relative position of various bond issues are briefly stated as follows by Chamberlain in "The Principles of Bond Investment":

"The secured obligations of a corporation

are superior to the debenture; lien security is surer than guaranty; lien on realty is stronger than lien on personalty; realty that is merchantable, or that has its own independent earning, makes a better lien than realty that cannot easily be sold or that has earnings dependent upon the cohesion of the entire property. A first mortgage has a better claim than a second; a second than a third; primary liens anticipate secondary liens, and secondary liens anticipate junior liens."

In the consideration of earnings applicable to a bond or other security to be purchased, the investor for profit will naturally pay more attention to probable future earnings and may often be satisfied with a smaller margin of safety in current income as compared with current interest requirements, than would the

investor for income only.

The investor for profit is seeking to identify his interests with a growing property. A bond issue by such a company showing only a moderate excess of earnings over interest will prove actually safer, if the investor's ideas in regard to the future of the company are correct, than the bond of another company upon which much larger current earnings are applicable, but which runs a risk of a falling off in

earnings during subsequent years.

At the same time the bond of the young and growing company will sell at a lower price than that of the company which has reached its fullest development, as the latter will be considered a "seasoned" investment and will be more actively sought by investors for income only, who constitute far the largest class. The investor for profit credits himself with ordinary business judgment in estimating the prospects of the corporation whose securities he He studies probable future earnings just as carefully as he does present earnings.

This subject will be more fully discussed later in connection with investments in stocks. The particular question I am now leading up to is, under what conditions are bonds more desirable than stocks as investments for profit?

Long term bonds are, as a matter of plain necessity, the issues to show wide fluctuations. If a 5 per cent. bond is to be paid off next year, a decline of only two points below par would place it on a 7 per cent basis while an advance of two points above par would reduce it to a 3 per cent basis. Under such conditions only slight fluctuations are possible.

The longer the term, the greater the fluctuation; but beyond fifty years the influence of the time of maturity upon the basis of yield becomes so slight as to be unimportant. A 60-year 5 per cent. bond on a 4½ per cent. basis costs 110.34, and a 100-year bond, 110.98—an addition of only .64 of a point for the 40 years additional term.

If, however, a bond is bought at a discount below par, as will nearly always be the case in investing for profit, the shorter the term the better, if other conditions are satisfactory; for the approach of maturity will then work in

favor of the investor.

For example, if a satisfactory 5 per cent. bond having ten years to run can be bought at 90, the price will advance (other factors remaining the same) about one point each year during ten years. Thus if the investor holds the bond throughout the entire period, he will get a shade over 5½ per cent. interest on his investment and an additional profit of ten points. In the meantime, if more favorable conditions bring his bond to par before the ten year period is up, he has the option of selling the bond and looking around for another equally good opportunity.

In figuring bond values the investor will naturally consult the bond tables, which show at a glance the actual yield at different rates

of interest for all maturities. In the case of a stock, as it has no maturity, the yield is figured by simply finding what per cent. the annual dividends are to the price paid. A 6 per cent. stock bought at 87 yields 600 divided by 87, or 6.9 per cent. It does not matter what the par value of the stock may be, as this does not

affect the yield on the investment.

With the bond, the question of yield is complicated by the fact that the purchaser is to receive par at maturity, while he may have bought his bond above or below par. If he bought below par, he makes a profit, so to speak, at maturity, which in the bond tables is distributed throughout the entire period between his purchase and date of maturity, thus raising the yield on his investment. Likewise, if he paid more than par, the premium thus paid is distributed over the whole time, reducing the yield on his investment.

One or two practical examples will show most clearly the circumstances in which the investor for profit would choose bonds instead

of stocks.

When the Norfolk & Western Railway was reorganized in 1896, a study of the map of the road and of the plan of reorganization showed great possibilities of earning power. Its lines

Prices	
by	
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as	v.
Ry.,	idenc
Western Ry.,	and Dividend
જ	
Norfolk	
of]	
rowth	

	stock—	Div.	:	:	:	:	2%	$2\frac{1}{2}\%$	3%	3%	$34_{2}\%$	41/2%	2%	4%	41/2%	2%	51/4%	%9	%9	%9	%9	73/4%
	mmon s	High.	171/4	19%	28%	453/4	61%	803/4	761/4	$80\frac{1}{2}$	881/2	97%	92%	$86\frac{1}{4}$	102	108%	$111\frac{1}{4}$	1194	$113\frac{1}{2}$	105%	122%	$147\frac{1}{8}$
	о́О— -	Low.	6	$11\frac{1}{2}$	17%	22%	42	55	53%	$53\frac{1}{2}$	92	84	56	58	841/4	881/2	99%	107%	86	$96\frac{1}{2}$	991/2	114
2	stock-	Div.	1%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
	ferred	High.	$48\frac{1}{2}$	637/8	741/4	83	$92\frac{1}{4}$	86	$93\frac{1}{2}$	95	96	96	$90^{1/2}$	88	$92\frac{1}{2}$	$91\frac{1}{4}$	91%	92	87	91	90	891/8
	—Pre	Low.	$22^{1/2}$	$42\frac{1}{2}$	61%	29	85	90	85	85	$91\frac{1}{8}$	06	20	74	821/8	871/2	85%	88	801/4	83%	801/2	841/8
	-spuoq	High.	801/8	06	96	100	104	$104\frac{1}{2}$	101%	102%	104%	102%	993/4	$99\frac{1}{2}$	$100\frac{1}{2}$	100	99%	997/8	66	96	94	96
	n. 4%]	Low.	$67\frac{1}{2}$	743/4	871/2	901/2	991/2	66	94%	$96\frac{1}{2}$	100	983%	98	90	86	$96\frac{1}{2}$	%126	96	88	92	863/4	$91\frac{1}{2}$
	-First co		1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916

tapped the rich soft coal and coke section in the mountains of western Virginia and the southern part of West Virginia, giving direct and easy transportation to tide-water at Norfolk, westward to Cincinnati and Columbus, and northward up the fertile Shenandoah Valley to eastern Pennsylvania. The road also formed one direct line for through traffic from the great Eastern cities to Chattanooga and beyond, and another from Virginia and North Carolina to Cincinnati and the West.

At this time, of course, neither the preferred nor the common stock was paying any dividends, but the interest on the first consolidated 4 per cent. bonds had every appearance of being secure. Nevertheless, owing to the recent reorganization of the company and to the general dullness of business at that time, these bonds sold as low as 67½ in 1897.

Here was a suitable opportunity for the investor for profit who could take an unprejudiced view of the future of the company, as well as of the current outlook. The table herewith shows the development of the company as indicated by the prices of the bonds and prices and dividends on the two classes of stock.

In 1897, dividends on the preferred stock,

though probable, could not be said to be assured. Hence it was a medium for the speculator rather than the investor. But the bonds, bought at or below 75, yielded a safe 5½ per cent, with good prospects of improvement.

cent. with good prospects of improvement. In 1900, the bonds reached par, at which price the opportunities for profit had practically disappeared and the investor for profit would naturally dispose of them. In the meantime, the preferred stock, 4 per cent. non-cumulative, had reached a permanent dividend basis. As it was not yet "seasoned," it could have been bought as low as 67 in 1900, the year when the bonds would probably have been sold. In two years more the preferred stock sold at 98. The investor might naturally have considered 95 a suitable price on which to take profits on a 4 per cent. non-cumulative stock.

By this time, 1902, the common stock had begun to benefit from the company's large earnings, being placed on a 3 per cent. basis in the middle of that year. In the panic of 1903, however, it sold at 53¾, and 53½ in 1904, giving the investor ample opportunity to switch into that issue at a satisfactory price. Earnings on the common increased steadily thereafter, with the growth of the section served by the road and the constantly increasing demand for

United States Steel-Prices of Bonds and Stocks Compared

-Sinking Fund 5% bonds- -Preferred stock- -Common stock-

		31/2%													
	High	39%	$33\frac{1}{8}$	$43\frac{1}{4}$	$50\frac{1}{4}$	583/4	50%	94%	91	$82\frac{1}{8}$	803/4	691/8	$67^{1/4}$	891/2	129%
	Low.	10	8%	247_{8}	32%	25%	21%	$41\frac{3}{4}$	61%	20	581/4	497/8	48	38	793/4
	Div.	1%	2%	2%	1%	2%	2%	1%	42	2%	2%	2%	2%	2%	7%
		89%													
	Low	49%	51%	90%	98¾	791/8	871/2	107	110%	103	$107\frac{1}{4}$	102%	103%	102	115
	High	875%	82.2%	99%	101%	66	103%	$108\frac{1}{4}$	105%	106%	104%	102	103%	105	1075%
n	Low	65	68¾	92	95%	781/2	$85\frac{1}{2}$	102%	$101\frac{1}{2}$	100	100	865%	$99\frac{1}{2}$	8%66	103%
		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916

soft coal and coke. In 1911 it was put on a 6 per cent. basis, and continued to pay that rate until, on account of the exceptional earnings piled up during the war boom period of 1915-1916, the policy of paying extra dividends was inaugurated. The market quotation for this stock kept well up with earnings, reaching 147 in 1916, which price had fully discounted the

large increase in earnings up to that time.

An investment of, say, \$750 in a bond at 75 in 1897, sold for \$975 in 1900 and reinvested in preferred stock at 75, closed out again at 95 in 1902 and put into the common at, say, 60, in 1903, would by July, 1913, ten years later, have been worth over \$2,300, in addition to having earned interest varying from 5 per cent. to 6 per cent. throughout the entire period. At the high price of 1916, it would have reached over \$4,000. And at no time did the investor hold any security of a lower grade than that ordinarily designated as a "business man's investment."

Another interesting example may be found in the sinking fund 5's of the U.S. Steel Corporation, as illustrated herewith in the second table. These bonds, placed on the market in 1903, sold as low as 65. The preferred stock was then paying regular dividends of 7 per

cent. but its low price 493/4 in that year showed plainly that investors regarded it

doubtfully.

There was no serious doubt at that time that the sinking fund 5's would be easily taken care of. If the investor for profit had bought them at 75 in 1903, he could have realized par for them in 1906. It may be assumed that he would do this, as par for a 5 per cent. industrial bond does not leave much chance for further appreciation.

By this time the preferred stock was on a sound basis, and in 1907 an opportunity was afforded to buy it at as low as 79½. It touched 131 in 1909, but the investor would doubtless have taken his profit before that figure, which was evidently pretty high for a 7 per cent. in-

dustrial stock.

Whether these profits should have been at that time reinvested in Steel common would be open to debate. That issue was then almost too highly speculative for the purposes of the genuine investor for profit, yet many conservative business men bought and are now holding it. Its partial dependence upon the tariff has been at times an unfavorable feature.

These examples, which might be multiplied almost indefinitely, serve to show the period in

a company's development when its bonds may be bought for profit as well as interest. In a word, the bonds are to be purchased at the time when the preferred stock has not yet reached an assured position in the matter of

regular dividends.

In the growth of the company, the bonds are the first to be brought up to the point where they are nearly independent of earnings and their price is chiefly determined by the condition of the money market; next the preferred stock comes up to a similar position; and finally the common stock arrives at the same plane, as has long been the case with such stocks as Chicago & Northwestern, Louisville & Nashville, Lackawanna, etc.

CHAPTER IV

THE SELECTION OF GROWING RAIL-ROAD STOCKS

AILROAD stocks, under normal conditions, afford the investor for profit what should perhaps be called his best opportunity, when all the various factors in the situation are taken into consideration.

In the first place, the business of a railroad is, of necessity, publicly performed. Its tracks and equipment are visible to everybody, its location is known, the business along its lines can be estimated and aften may be computed from current statistics, and evidences of good or bad management are plain enough to any experienced railroad man, and in many cases to the inexperienced likewise.

Again, the system of railroad accounting, as enforced by the Interstate Commerce Commission, is now uniform and definite, so that only a small knowledge of bookkeeping is necessary in order to judge of the prosperity or adversity of a road. An industrial company may put its stockholders off with a brief statement

that the gross business for the year was so much and the net profit so much, without any further explanations or details; but the railroad company cannot do this. It is legally required to set forth an intelligible statement of its earnings and conditions in a certain definite

and prescribed form.

Still another advantage of railroad securities, as compared with others, is that the business of the company is so largely dependent upon growth of population and development of general industry. Even a poorly managed, overcapitalized road will make money in a rapidly growing and prosperous section, while the best and most conservative handling may not avert a deficit in a region where business is stationary or declining.

This matter of population will be the first to be considered by the investor for profit in selecting railroad stock. It is quite true that a good road may, under certain conditions, make rapid progress and build up its income in spite of only a small growth in population along its lines, but the investor for profit wishes to get the advantage of a combination of favorable conditions. He can select any road in the country for his investment. There is no reason why he should not select one where the con-

dition of growth of population is in his favor.

For example, the census figures show that the State of New Hampshire gained only 4 per cent. and Maine 7 per cent. in the 10 years from 1900 to 1910; while Oregon increased 62 per cent., California 60 per cent., Arizona 68 per cent., and Texas 28 per cent. Other things being equal, therefore, the investor for profit would choose a road running through the latter states, as the Southern Pacific, instead of one operating in New Hampshire and Maine—the Boston & Maine.* A railroad cannot do a big business unless the business is there to be done.

The next important point to be investigated is whether the business of a road is diversified, embracing a great number of different industries and products, or dependent to a large extent upon a single industry.

The roads report the character of their traffic under six heads, as prescribed by the

Interstate Commerce Commission:

(1) Products of agriculture, such as grain, flour, cotton, hay, etc.

(2) Products of animals—livestock, dressed

^{*}This was written in October 1912. The later course of the two securities well illustrated the importance of the principle explained.

meats, wools, etc.

(3) Products of mines—coal, coke, ore, etc.

(4) Products of forests, that is, lumber and allied products.

(5) Manufactures of all kinds.

(6) Merchandise and miscellaneous.

The ordinarily well informed man generally knows enough about the character of the section through which a road runs to form an idea of the nature of its traffic. With the growth of large systems, most of the roads handle a widely diversified business, so that this subject is not as important as when there were numerous small disconnected lines, each one serving a restricted territory. Even the "grangers," which formerly handled a very large percentage of agricultural products, now carry a diversified business as a result of the increasing prosperity of the farmers and the growth of manufacturing in the sections served.

If a road is largely dependent upon one industry—as for example Lehigh Valley, nearly two-thirds of whose tonnage is anthracite coal—its prosperity will vary with the activity of that industry. This may be a favorable or an unfavorable feature, according to circumstances. In the 80's, when the price of coal fluctua-

ted violently and the business was generally disorganized, the hard coal roads were at a disadvantage; but in recent years since conditions of partial monopoly have been established in the anthracite industry, the roads have flourished because they participated in the profits resulting from higher prices for coal.

The next question is, Is the road being managed strictly for the benefit of the stockholders, or is it in the hands of speculative interests? Now that the railroads of the country have been gathered into a few large groups under the control of great banking interests, most investors know the general character of the management of the leading lines, or if they do

not, can easily find out.

The days of deliberate wrecking of a railroad, as Erie was wrecked by Gould and Fisk, are undoubtedly over for good and all; but there is a great difference between capable, efficient, economical management, and careless, wasteful methods, or management with one eye on the stock market. Strong banking connections are practically a necessity to a railroal under present conditions. Its income is also materially affected by its relations with connecting and with parallel lines. "Community of interest" often puts a relatively

weak road in a position to make money, when it could hardly keep its head above water under

strictly competitive conditions.

The fact that a road is controlled by Morgan interests, or financed by Kuhn-Loeb, or is under Hill management, is not, taken alone, a guaranty of success; but other things being eqnal, the identification of a road with interests having abundant resources and wide influence is to be reckoned as an important asset.

When we come to the question of capitalization, it is little use to figure on the capital issues per mile of road. The question to be considered is, Are the earnings large enough to pay interest on the entire capital and leave a reasonable balance? Where a heavy business must be handled, a large capitalization per mile is necessary; while in a sparely settled agricultural district, the capital needed may be very much smaller.

It is clear that the amount saved from earnings will depend to a considerable extent on expenditures for maintenance of way and of equipment. A road can make its earnings show a fictitious increase for a year or two by cutting down its normal expenditures for new rails, new locomotives and cars, grading, repairs, etc. Equally, it can include under the

heading of maintenance, expenses which have actually been made for permanent improvements, thus causing its earnings to appear much smaller than they would be naturally.

No definite figure can be set for proper maintenance. The necessary expenses for this item vary so greatly for different roads and under varying conditions that the average investor is obliged to depend on the opinions of experts in forming his judgment on this subject. When the annual reports of the principal companies appear, the question of main-tenance comes in for careful study by statisticians and financial experts, and the discussions of the subject in leading financial publications generally give the reader a fair idea of the situation. Of course, an actual physical examination of the line by a competent railroad engineer is the best possible information. It is only occasionally that this is available, but nevertheless a knowledge of the real condition of the various roads gradually percolates through financial circles.

Net operating income, or the amount left over from total receipts, after all expenses of operation and maintenance have been deducted, is usually the main reliance in judging the value of the stock. It should always be figured on a per mile basis in comparing results of one year with another, or of one road with another. An increase of 500 miles within any year in the length of lines operated, would naturally increase net earnings for the system as a whole, but this might not represent any improvement in earnings per mile.

Most roads also have some "other income," not obtained directly from operations. This is added to "net operating income," giving the road's "total income."

After arriving at total income, the next thing is to deduct the fixed charges, or interest on bonds, notes, guaranteed stock, etc. The amount of this item is always given in the annual report. An issue of new bonds or notes during the year will increase the fixed charges in the next annual report, and to that extent weakens the position of the stock, which cannot be credited with any earnings until after all fixed charges are met.

The sum remaining after fixed charges are paid is called "annual surplus," or "balance after charges," and the per cent. of this surplus to the total income is called "margin of safety." If the total income is \$20,000 a mile and the surplus above fixed charges is \$10,000, the mar-

gin of safety is 50 per cent.

Perhaps it is the use of terms like "margin of safety," which sound technical, although the idea they express is exceedingly simple, that leads the average investor to take all his information about conditions and earnings of a railroad at second hand from the newspapers

or from circulars of brokerage houses.

In point of fact, it is nearly as easy to figure the earnings on a railroad stock as it is to reckon up your personal cash account. You earn so much in a year, you spend so much, and whatever is left over represents your savings. Just so a railroad has certain gross earnings, certain expenses, a certain amount of interest to pay on its debts, and whatever is left represents surplus, which may be distributed as dividends on the stock if desired by the management.

All these figures are very easily accessible in various publications which tabulate railroad earnings and expenses so plainly that any one

can understand them.

The simplest and clearest way of getting at this subject will be to take some railroad as an example and show just how the investor for profit would have proceeded and why he would have done as he did. We will take a road which has not had an uninterrupted growth, but which has passed through a period of bad management, and another period of depression which was in no way the fault of the management, resulting in each case in the temporary suspension of dividends. We shall thus be able to see just what advance warning the investor had which would have permitted him to sell out his stock before the dividends were

suspended.

We will select Southern Railway. Taking up first the question of location, we find that this road gridirons the South Atlantic and Gulf states. The census shows that the value of farm lands and buildings in the 16 Southern states increased from \$4,077,000,000 in 1900 to \$8,964,000,000 in 1910, or about 125 per cent. The value of farm buildings alone doubled during the decade—a strong evidence of increasing wealth; and the value of twelve leading crops also doubled. Value of manufactured products increased 120 per cent. and total wages in manufacturing industries 157 per cent. Population gained over 20 per cent.

There is no doubt, therefore, that the Southern Railway is located in a rapidly growing section. In regard to the character of its business, the breadth of territory covered assures a diversified traffic. The rapid growth of manu-

Earnings, Prices and Dividends of Southern Railway Preferred.

Price Range of Pref	23-38	23-43	41-58	49-73	67-94	26-68	96-69	76-77	95-102	93-103	29-94	25-63	60-75	43-75	61-75	98-89	72-81	58-85	42-65	56-73
Paid on Pref.		1%														4.				
g Earned on Pref.	0.7%	1.7%	3.5%	4.9%	5.9%	6.0%	6.4%	7.0%	8.6%	8.7%	3.8%	0.7%	6.0%	9.6%	11.1%	11.27%	11.80%	8.07%	2.67%	15.56%
% Oper's Exp.	69.35	68.41	68.46	86.69	98.69	71.19	73,18	73.41	72.87	74.15	78.89	79,11	71.83	70.89	71.49	72.57	74.06	76.95	78.46	66.69
Surplus.	\$93	205	388	463	536	533	520	584	717	400	303	102	575	817	948	954	1,006	694	241	1,338
Per Mile—Net Earnings.	\$1,278	1,417	1,545	1,538	1,639	1,791	1,761	1,870	2,008	2,084	1,800	1,750	2,337	2,647	2,751	2,806	2,879	2,700	2,279	3,411
Gross Earnings.	\$3,975	4,305	4,695	4,952	5,252	5,592	5,941	6,297	6,688	7,274	7,507	7,072	7,298	8,127	8,569	8,971	9,740	10,059	8,846	296'6
	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916

factures is an especially favorable indication in this direction.

The road was incorporated in 1894 under Morgan leadership, and that house has continued to be the banking representative of the

company.

Now, coming to the question of income, the table herewith shows annual earnings, per cent applicable on the preferred stock, dividends paid, and range of prices from 1897 to 1916. Gross and net earnings and surplus are shown

on a per mile basis.

The only figures that may not be fully understood by all are those under "per cent. operating expenses." This means the per cent. of the total operating expenses of the road to its total gross earnings. These figures are commonly reduced to a per cent. so as to show by comparision whether a road is being economically operated—whether a larger or smaller part of its gross earnings is being eaten up in the cost of handling the traffic.

The attention of the investor for profit would naturally begin to be attracted to this road when in 1899 it earned 3.5 per cent. on its preferred stock against 1.7 per cent. the preceding year, and declared 2 per cent. dividends. Looking into the matter further, he would see

that both gross and net earnings were rising year by year, and that the surplus had increased from \$93 per mile in 1897 to \$388 per mile in 1899. He would also notice that the per cent. of operating expenses to gross earnings had fallen from 69.35 in 1897 to 68.46 in 1899.

All this looked very favorable, and as the road was in a growing territory and backed by strong interests, the investor would be warranted in buying some of the preferred stock, which even with a dividend of only 2 per cent. would return him a satisfactory income on the investment, while prospects of an increased dividend seemed good. The price in 1899 ranged from 41 to 58.

Year by year he would have the pleasure of seeing earnings and dividends increase and prices rise. Up to and including 1902, the only fault he could find would be that the road was paying out nearly all of its yearly surplus in form of dividends, and was not building up a reserve against the possibility of dull times.

In 1903, there was a falling off in net earnings and in surplus per mile; also the per cent. of operating expenses rose to 73.18 from a low point of 68.41 in 1898. However, 1903 was a somewhat depressed year, when a railroad

could not be expected to make the best possible showing, and the decline in net earnings was perhaps no more than would reasonably be expected under the circumstances. A better record would be probable as soon as bus-

iness recovered its normal activity.

This happened in 1905, and in that year there was also a slight decrease in the per cent. of operating expenses to gross. But in 1906, our investor received a jar. At that time, general business was booming. Every railroad ought to be able to make as good a showing as ever it could. Gross earnings for Southern Railway jumped from \$6,688 per mile in 1905 to \$7,274 in 1906—nearly double 1897.

But net earnings showed only a trifling gain, surplus per mile declined, and the per cent. earned on the stock was only 0.1 greater than in the previous year. Something was checking the growth of net earnings. What was it?

The key was found in the per cent. of operating expenses to gross, which had risen from 72.87 in 1905 to 74.15 in 1906. For some reason the road was not handling its

business economically.

The reason was discovered quickly enough by the reader of financial publications of that date. The Southern's train service in 1906 was a joke throughout the states it served. Passenger trains were late, accidents were frequent, and freight trains moved uncertainly. Yards were clogged with waiting cars, and the inadequate equipment was constantly breaking down. The company had paid out in dividends money which should have been expended for improvements; consequently, when a big volume of business came, it could not be handled satisfactorily or economically.

In the meantime, April 18, 1906, the stock-holders had authorized a "development and general mortgage" of \$200,000,000 in gold bonds, of which \$15,000,000 was to be issued immediately for the "refunding of payments for equipment heretofore made and charged to capital," for advances to subordinate companies, and for double tracking, revision of grades, etc.

The issuance of these bonds showed the pinch the company was in. The price of the preferred stock for 1906 ranged from 93 to 103, or high enough for a 5 per cent. noncumulative stock even of a thoroughly prosperous company. The investor would take warning. His company had stopped growing. Hence it was time for him to get his money out of it and to place his investment where he might hope for a profit in addition to his interest.

In fact, the investor might well have set his limit at par in the first place, on the principle that 100 was high enough for a stock of that character, in which case he would have got his figure in the previous year, 1905, when the high point touched was 102. In this instance, however, I wish to show how a brief consideration of a few simple figures, available to everybody and readily understood, would enable the investor for profit to perceive the development of unsatisfactory tendencies in the earnings of the road.

In 1907 came the panic, and dividends on Southern Railway preferred were discontinued. This took the stock out of the class adapted to the investor for profit, as his cardinal principle is to get interest on his money first and then

to add profits, if possible.

In April, 1911, dividends were begun again, with all conditions affecting this road apparently favorable. Earnings on the preferred had risen from 0.7 per cent. in 1908 to 9.6 per cent. in 1910, and when the report came out it showed 11.1 per cent. The price range for 1911 was 61 to 75, giving the investor a suitable opportunity to repurchase at a much lower price than he sold, if the investment was to his liking at that time. The high price for

1912 was 87%, and dividends had been increased to 5 per cent.—the full amount that

can be paid on this issue.

In 1913, however, the same conditions as in 1906 again appeared—a big increase in gross brought only a trifling rise in net, and the operating ratio climbed above 74 per cent. This was a warning that all was not as it should be.

The severe depression which overtook the South after the outbreak of the European War in 1914, following the utter collapse in cotton prices and the absence of a demand for that staple at any price, brought about a sharp reduction in the earnings of this road, which was promptly reflected by a decline in the selling price of the preferred issue, and a little later in the suspension of dividends. The decline continued during 1915, when it touched a low of 42, but thereafter conditions in the territory traversed began to improve rapidly, and the price of the stock also showed a marked recovery. The regular 5% dividends were resumed in November, 1917.

CHAPTER V.

WATCHING THE STANDARD RAILS

In is to be noticed that while the great standard companies which do a well maintained business year after year, are not in the same position as those companies discussed in the last chapter, which must grow as a necessary result of their location in growing territory, these standard companies nevertheless have their growing periods, and these periods can often be distinguished by the watchful investor.

To take an example, which will be likely to bring out the point more clearly than a more abstract discussion, we will examine into the history of the New York, New Haven & Hartford Railroad since 1897.

I have selected this road because it is perhaps the least favorable for the investor's purpose of any of the leading American railways. It is located in New England, the oldest section of the United States, where natural resources are less bountiful than in most sections and have also been pretty thoroughly developed in the past. It is a road which has had to meet water competition on one side and

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trolley competition on the other. In order to hold its own it has been obliged greatly to increase its capital issues for the purpose of buying up steamships and electrics, which when acquired have added but little to its income. Its New York terminals have also been a source of great expense.

As a result of these various conditions, New Haven stock sold as low in 1911 as in 1907, and lower in every year from 1907 down to date than in the depression of 1896-7. We may take it for granted, then, that if the investor for profit could distinguish the growing periods in the recent history of this stock, he could do equally well or better in the stocks of other roads which have made greater progress.

In the accompanying table I have compiled, for each year from 1897 to 1912, the earnings on this stock, dividend paid, per cent. of operating expenses to gross earnings, and range of price. These figures show the salient facts in the condition of the company year by year. All are clear to every reader, with the possible exception of "operating ratio"—the per cent. of expenses to gross earnings, which was explained in the last chapter.

The novice, in calculating this per cent. on any stock, should be careful to distinguish be-

tween "net operating income" (commonly called "net earnings"), and "total income." Operating expenses may be obtained by deducting net earnings from gross earnings; but total income usually includes other items besides earnings from operation, such as interest on se-

curities owned, etc.

Starting with 1897, we find the stock earning 8.2 per cent., and paying out practically ehe entire earnings in dividends. This was perhaps warranted because of the firmly established condition of the company and the stability of its business. The road was not at that time under the necessity of piling up a surplus for extensions and improvements, as would have been the case with a road in newer territory. The operating ratio was at a safe figure, 67.6 per cent.

At the price of 160 the stock was returning 5 per cent. on the investment,, which was as large a return as could be expected from a stock of such high standing, and in view of the contracted state of general business in 1897, the investor might well conclude that if he bought the stock around that price, he would have ample opportunity to sell it higher when

he found such action advisable.

New York, New Haven & Hartford R. R., 1897-1916.

Price Range.	160 - 185	178 - 201	198 - 222	208—216	206—217	209 - 255	187 - 225	185 - 199	192 - 216	189—205	127 - 189	128 - 161	154 - 175	149 - 162	127 - 151	126 - 142		50— 78	43— 89	49— 78
% Operating Expenses.	67.6	68.5	8.89	70.2	70.2	71.9	73.9	71.3	71.2	70.2	65.6	74.4	66.4	63.7	65.8	64.8	8.89	73.	67.5	6.99
Div.	%8	%8	%8	%8	8%	%8	8%	%8	%8	%8	%8	8%	%8	%8	%8	%8	2%	:	:	:
ed on Stock.	8.2%	8.2%	8.4%	8.7%	8.7%	8.7%	8.4%	8.1%	8.4%	12.2%	9.2%	5.4%	7.4%	10.3%	7,1%	8.5%	4.9%	:::	1.5%	2.7%
Earned			•						•			• • • • • • • • • • • • • • • • • • • •								
	1897	1898	1899.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916

For three years he would have been gratified to see a steady advance in the price, accompanied by slightly larger earnings on his stock and no important change in the operating ratio. By the end of 1901, however, he would have observed that the operating ratio was creeping up, while the earnings on the stock had stopped increasing and remained stationary at 8.7 per cent. Early in 1902 he would have found his stock at the extremely high figure of 255, at which price the yield would be only 3.1 per cent.

Bearing in mind that our investor is planning to hold his stock only during the period of growth; that the per cent. of earnings on the stock has now ceased growing; and that the operating ratio has been gradually rising for four years; we may conclude that before the high price was reached, he would have been satisfied to take his profit and to look elsewhere for another investment.

When the annual report for the fiscal year ending June, 1902, came out, he would congratulate himself on the sale, for the operating ratio for that year jumped to 71.9 per cent.

In May, 1904, the price dropped back to 185, but the investor would not be willing to repurchase, for the operating ratio of the preced-

ing year had been still higher at 73.9 per cent, and earnings on the stock lower at 8.4 per cent. These figures showed very plainly that the company was not yet down to an economical

basis in the handling of its business.

The 1907 report, however, showed a marked improvement. Not only had earnings risen to 12.2 per cent. for 1906 and 9.2 per cent. for 1907, but the operating ratio for the latter year was down to 65.6 per cent., the lowest for over ten years. This appeared to demonstrate that the company had put itself in a position to handle the very heavy business of that year in a successful and economical manner.

November, 1907, gave an opportunity to repurchase the stock at 127, and 128 was touched early in 1908. There were plenty of opportunities to buy all sorts of stocks at a bargain at that time; but if the investor had again selected New Haven, yielding 6.3 per cent. on an investment at 127, he would certainly have been warranted in sleeping soundly on his purchase.

When the 1908 report came out, however, he would have been shocked to learn that not only had the earnings dropped off to 5.4 per cent.—which was not unnatural in view of the depressed condition of business—but also the operating ratio had risen to the surprising fig-

ure of 74.4 per cent. An examination of the report showed that this was due to a large increase in expenses for "maintenance of way" which had been somewhat reduced in 1907.

The investor would naturally reach the conclusion that the very low operating ratio for 1907 had been achieved by letting the road and equipment run down, and that this deterioration had to be made up in 1908, a year of poor business. He would be dissatisfied and would get out of his holdings and look around for

something else.

That investors did exactly this is shown by the fact that the high price for this stock was 175 in June, 1909, while the high price for the average of 20 standard rails was not reached until September of that year, and in some individual cases, not until December. Investors were availing themselves of the strong spots to get out of their holdings. But as the high price of the stock for 1908 had been only 161, our investor would have had ample opportunity to get a moderate profit even if he had delayed unreasonably long in purchasing in 1908.

The 1910 report showed that earnings were again up to 10.3 per cent., and the operating ratio down to 63.7 per cent., so that the investor might have been warranted in taking ad-

vantage of the low prices of 1911, if New Haven stock still looked attractive to him. But the unfavorable results of the years of 1911 and 1912 should have warned him that his investment was not progressing satisfactorily, so that he could have avoided being hung up in it when the severe slump occurred in 1913. And the earnings of the later years shown were by no means such as to encourage reinvestment.

The investor who bought in 1911 around 130, and failed to take his profits on the advance to 142 in 1912, had at least sufficient warning in falling earnings and the relative weakness of the price compared with other railroad stocks, to lead him to sell before his purchase ran into a loss.

The fact must again be emphasized that no sort of golden rule can be drawn from the figures given in the table, which can be applied to all conditions and circumstances alike. The earnings and operating ratio simply give in the most condensed form the same information that any business man would collect and study if he were running a business of his own—the relation between earnings and expenses, and the per cent. earned on the investment. It is merely a common sense proposition, yet many

inexperienced investors seem to find them-

selves confused by it.

It is highly desirable for the student of investment conditions, who desires to profit from his investigations in a practical way, to keep a note book or some rough memoranda showing the progress of all the principal railroads. The form of table shown in the preceding chapter is a good one for that purpose, as giving a more comprehensive view. The time required to compile the figures is unimportant, as the reports on which the table is based appear only once a year.

With these data at hand, the investor at once notices any important change in the condition of any company, and by comparison with other companies he can quickly discover whether the change is due to special conditions affecting that company alone, or is a result of more general causes, which are affecting all the

roads together.

When he has learned in this way to keep his finger on the pulse, as it were, of each railroad system, he will begin to see many opportunities for switching his capital from a road which has stopped growing to one which is apparently just beginning to grow, or from a road which has just finished a growing period to

one which has completed a movement of contraction and retrenchment and is again ready

for a new forward swing.

Exact information, intelligently digested and broadly viewed, is the principal requisite for success in investing for profit.

CHAPTER VI

INVESTMENT STOCKS AND THE PRICE OF CAPITAL

rHY do sound investment stocks, on which dividends are paid regularly and are apparently secure, at times sell very much below their average or normal value over a period of years, and at other times very much above that value? And is there any way of deciding when they are below their normal value and when they are above it?

If so, the investor will be in a position to buy when prices of such securities are below normal and to dispose of his holdings when prices are above normal, thus adding something to the income which he would receive if he held his stocks steadily year after year.

There are two kinds of influences which af-

fect the prices of investment stocks:

(1) The price of capital, which is pretty closely reflected in the yields obtainable on high grade bonds.

(2) The prospects of the company itself, as viewed by buyers and sellers of the stock.

Prices of the highest grade bonds depend

almost entirely on the cost of capital. Payment of interest and principal on such a bond is assured, so there is no reason why fluctuations in the company's earnings should affect its price. It will rise and fall in harmony with the supply of capital available for investment.

The same thing would be true of a standard dividend paying stock, if the dividends were as firmly assured as the interest on a high grade bond. This can never be true, because the company has the privilege of suspending or re-

ducing dividends at will.

The only strictly logical reason why the price of such a stock should fluctuate any differently from the price of a high grade bond is the prospect or possibility of a change in the dividend rate. But as a matter of fact we know from observation that stock prices do rise and fall for other reasons, or to a greater extent than would be warranted by the possibility of dividend changes. When all prices are falling and investors are in a discouraged state of mind, stocks on which there is every reason to expect a continuance of the current dividends will fall with the others; and when the market is booming and everybody is full of optimism, stocks on which the permanent maintenance of current dividends is by no

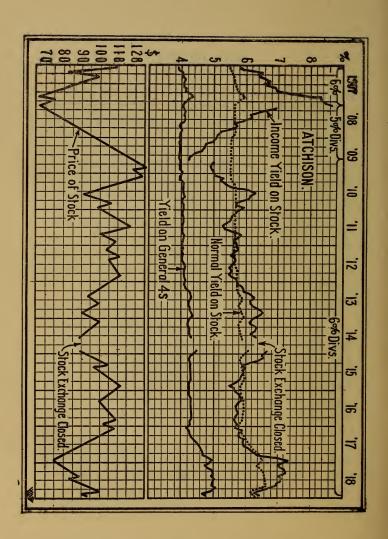
means fully assured will rise with the rest.

Such price movements afford the discriminating investor valuable opportunities to buy or sell.

The income yield on a stock will nearly always be higher than the yield to maturity on a high grade bond. That is inherent in the nature of the security. But it is easily possible, by examining the yield on the stock during a period of years and comparing it with the yield on the bond, to note the average difference between the two yields, and thus to discover whether the price of the stock at any particular time is above or below its normal plane of

income yield.

To show how this may be done in actual practice, we will compare the yields on Atchison common stock and the Atchison general 4's. This bond is one of the most stable on the list and changes in its price are almost entirely due to variations in the supply of investment capital. The 6% dividend on the stock was reduced to 5% in 1908 and the first half of 1909, but since the resumption of the 6% at that time there has never been any real reason to doubt the ability of the road to maintain that rate. Yet the stock sold above 123 in 1910 and at 75 in 1917. And curiously enough, less than



9% was being earned for the stock when it sold at 123 and 14% was earned in the cal-

endar year 1917, when it sold at 75.

The graph shows the income yield on the stock at the mean price for each month from 1907 to 1918. For additional clearness the principal fluctuations in the price of the stock are also shown at the bottom of the graph.

The line showing the yield on the general 4's is computed in the same way. It shows

yields to maturity, not current income.

A comparison throughout the period shows that the income yield of the stock has averaged approximately 1.6% more than the yield on the bond. This has been assumed as a normal yield for the stock, and is shown in connection

with the actual yield month by month.

It is interesting to notice that the reduction in the dividend to a 5% basis in 1908 was over-discounted in advance by the price of the stock, so that even after the cut the income yield at the new rate was farther above normal than any later yield. And in the same way the resumption of the 6% rate was over-discounted, so that the yield at the new rate was considerably lower than any later yield.

These extreme fluctuations gave the investor special opportunities. After the dividend was

reduced to 5% in 1908 there was no probability of any further reduction; yet even then the investor had a chance to buy the stock around 70, giving him nearly 7% on his money. And when the 6% rate was restored in 1909 there was no early prospect of any higher rate, but the investor had plenty of opportunities to sell above 120, where the income yield was about 3/4 of 1% below the indicated normal yield at that time, judging by the yield obtainable on the bond.

In the bear market of 1910 the income yield on the stock rose again to 3/4% above normal. Earnings for the stock had been 12.1% in 1909 and were 8.9% in 1910. For the five years ended 1910 they averaged 11.1% annually. Any idea that the dividend would be reduced was fanciful. Yet the stock sold at 91, manifestly below its normal value.

In 1913 there was a close repetition of the conditions of 1910 as regards comparative yields. In the war panic of 1914 Atchison was one of the stocks that held its value best, yet its income yield was then half of 1% above normal and the stock sold at 89. In December, 1917, at 75 the stock was a clear bargain, with a yield almost 1% above normal, so it was not surprising that it sold at 9934 in 1918, in

spite of war conditions.

On the other hand, the investor who was studying the stock from this point of view would not have been inclined to buy in October, 1917, although the price fell to 90¼ in that month, for he would have seen that bonds were falling equally fast, so that even then the yield on the stock was not above normal.

In making the above comparison a bond and stock of the same company has been used but this is not necessary, as all bonds of this high grade show substantially similar price changes. A practical way of handling the matter would be to make up an average of the monthly yields of several high grade bonds and use this average for comparison with the yields shown by any stock in which the investor is interested. Suitable bonds for the purpose, which have available price records for a dozen years or more, would be the Atchison general 4s, Penna. Co. 1st 4½s, Louisville & Nashville unified 4s, and Northern Pacific prior lien 4s.

The above explanation is sufficient to bring out the principle, which is, in fact, clear at almost the first glance. It applies to a large number of stocks of the investment class which have paid their dividends regularly and look likely to do so. It has little bearing on the more speculative class of stocks, since these are usually not owned for income. If the dividends on a stock are precarious or temporary, the method explained will be of little service.

Preferred stocks of the highest grade will naturally vary much less from the line of normal yield than common stocks or preferred stocks which are not so strongly protected. Take Atchison preferred, on which the 5% dividend is usually earned four or five times over. Its highest yields have been 6.4% in 1907 and 6.7% in 1917, at the lowest prices of those years, while at the high points of 1909 and 1911 its yield was 4.7%. Roughly, its fluctuations have been about twice those of the general 4s, and investments in it should be looked upon as about the same as in a good second grade bond.

On the other hand, Virginia-Carolina Chemical, which has paid 8% dividends regularly for many years, sold to yield 10.7% in 1907, rose until it returned only 6.2%, fell in 1916 to a 10% yield, and has again advanced to a 7% yield. There were wide price changes in it, which this plan would aid the investor in

gauging.

If there is any permanent change in the in-

vestment standing of a stock, it is necessary to take that into consideration. For example, if average earnings for a stock 1906 to 1910 were 1¼ times its dividends, and from 1911 to 1915 3 times the dividends, it would be entitled to a somewhat higher price even though the dividend rate was the same throughout.

The plan is not suggested for the speculator, but merely to aid the investor in buying to good advantage and in selling when his stocks

are higher than their normal level.

CHAPTER VII

APPLYING COMMON SENSE TO INDUSTRIALS

E cannot apply all of the same principles to industrial stocks that we have applied to railroads, because few industrials furnish the public with complete statitics as to their operations. In buying most industrials, the investor is always somewhat in the dark.

To be sure, he can form his opinion from current news reports, or from his knowledge of the activity of the business in which the company is engaged, or from deductions made from net earnings and dividends as given out in the annual reports. But this is a different thing from working on such definite statistics as are given out monthly and yearly by the railroads.

This fact need not discourage the would-be investor for profit. If there is one thing in the science of investment that needs to be emphasized more repeatedly than any other, it is that no rules can be laid down. We can only apply to every proposition the same practical busi-

ness intelligence that we would apply in the

management of our own personal affairs.

In fact, the title of these chapters might almost as well be "The Application of Common Sense in Buying and Selling Securities," as "Investing for Profit." Each case must be considered on its own merits, on the facts that are available, and by whatever method is most practicable under the circumstances. That is the reason why I am to such a large extent following the plan of studying actual examples of different securities, rather than confining myself entirely to abstract principles.

The most prominent industrial company in the world is the United States Steel Corporation. How could the investor secure profits in addition to interest in buying its stocks? It will afford us a convenient and useful example.

First, what do we know about the steel business. We know—

That it has been enormously profitable, having made more millionaires than any other industry.

That its products are of a staple character, so that the consumption of them must contin-

ue and grow from decade to decade.

That stocks of raw material can be carried almost indefinitely, with but little expense be-

yond the loss of interest on the money tied up in them.

That in times of dull business at home, steel products can be exported in large quantities at prices which will at least keep the plants in operation, though profits may be small.

That in times of active business, profits are very large, probably larger than in almost any other line.

On the other hand, we know that the steel trade is always "a prince or a pauper," according to business conditions. Steel and iron products are used very largely in new construction of all kinds. Hence, when there is general confidence in business circles, and new construction is proceeding rapidly everywhere, the demand for steel is greater than the the supply. But when new construction is checked, whether by financial stringency, political uncertainties, temporary exhaustion of capital, or for any other reason, then the demand for steel falls off very sharply and suddenly, and a considerable time may elapse before it revives.

Plainly, if the investor can buy steel stocks near the beginning of one of these periods of expanding activity, he is assured of a posit in addition to his dividends. If his purchase is made at such a time, he can sell out at his leisure, either when his stock is as high as he thinks it reasonably should be on the basis of the dividends it pays, or when the steel industry has reached such a degree of activity that he thinks the probabilities are against further gains. He will never get top prices, but should

always get a fair profit.

Of the various steel companies, the United States Steel Corporation controls nearly half the business of the country and presents to the public more complete and accurate statistical information than any other company. Its annual reports contain about everything one could ask for. Its earnings are given out quarterly. The amount of unfilled orders on hand were also published quarterly up to June 30, 1910, but since that date they have been given out monthly.

It is easily possible to figure out the operating ratio of this company, on the same plan as applied to the railroads; but it is doubtful whether as good results could be obtained as with the railroads, on account of the sudden

fluctuations in the steel business.

Moreover, in one way we have a still better class of statistics available for this company. The unfilled orders on hand represent future

business, and a knowledge of the future business of the company is certainly much more valuable to the investor for profit than a study

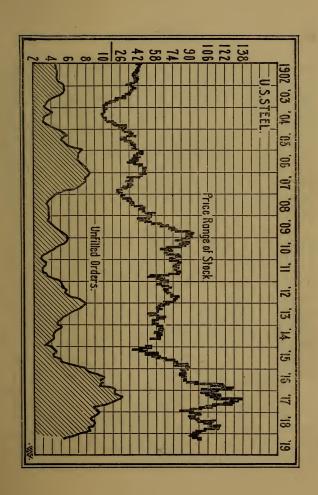
of past business.

Let us examine these unfilled orders for a period of years, and see if they afford any useful indications as to the probable future movements of the price of Steel stocks. Everyone understands, of course, that many other influences will enter into the making of the price. But the great thing, after all, with an industrial company is getting the orders. It might reasonably be supposed that orders on hand would be so much more effective than any other considerations as to exercise a strong degree of control over the price.

In order to study the relation between unfilled orders and the price of the stocks, we must get the statistics before us in some intelligible form so that we can examine them in detail. The method here employed is that generally used by statisticians. It is very quickly understood and can be applied by any one without any special knowledge, wherever several classes of contemporary statistics are

to be compared and analyzed.

The first statement of unfilled orders was given out in 1902. Therefore, in the diagram



herewith, we begin with that year and allow an equal space from left to right for each year up to 1916. Then we lay out a price scale on the left side of the diagram for the price of Steel common, and another scale for the amount of unfilled orders. When completed, the diagram shows the progress from year to year of both the price of the stock and the amount of unfilled orders, permitting a fairly close comparison of the general movements of these two factors.

We use the price of the common stock because it is more directly influenced by the prosperity of the business than the preferred stock, and therefore has fluctuated more widely. The common, however, did not pay dividends through the entire period shown on the diagram. For about two and one-half years, 1904 to 1906, and again for one year, from March, 1915, to March, 1916, dividends were suspended; and during those two periods the investor for profit would possibly have selected the preferred stock, which has paid 7 per cent. regularly. The price of the preferred has followed that of the common in a broad general way, but with somewhat narrower fluctuations. It is omitted from the diagram to avoid possible confusion.

During 1902 and 1903, we see that the price of the stock moved substantially in harmony with the rise and fall of the unfilled orders. In the middle of 1904, however, there is a further decline in orders, while the price of the stock continues generally upward. This was due to the fact that the price of the stock had been abnormally depressed in 1903 by the financial panic, and in 1904, with the return of easy money, a great part of the depression was soon recovered.

In other words, a great change in the money market caused this stock to move in some degree independent of any change in orders; but the variation is slight, and merely caused the stock to advance a little ahead of orders, since the orders rose very sharply at the end of 1904.

Throughout 1905, 1906 and 1907 the correspondence between the movements of orders and stock is really surprisingly close. In 1908, we have a repetition of the conditions of 1904. A very easy money market, following the panic of 1907, caused the stock to rise sharply in advance of any increase in unfilled orders.

In 1909 and 1910, there is a general correspondence in the movement of the two lines on the diagram, but in 1911, following the severe liquidation of 1910, the price again pre-

cedes the upward movement of orders, though in this instance but slightly, because the depression of 1910 was not severe. In 1912 and later years a close correspondence is again shown.

We see, therefore, that the changes in unfilled orders do have a very direct connection with the movement of the price of the stock. But it is one thing to see this fact and quite another thing to take advantage of it in a

practical way.

In 1904, 1908, and 1914, the investor might well have bought Steel—or almost any other stock—as soon as the panic was over and easier money conditions began to return. In 1911, he probably would not do this, because we had no real panic in 1910. If the investor had the courage and wisdom to buy in these panics, he could then be guided in part by the unfilled orders as to how long he should hold his stock.

But let us assume temporarily that the investor has no knowledge of panics or of the money market, and is depending solely on the company's unfilled orders in shaping his course. Could he from this source alone, get

a profit in addition to his interest?

In each of the four periods of depression shown on the diagram we note the following facts:

(1) Unfilled orders, after a sharp decline, remain at a low level for about one year.

(2) During the latter part of this year the

price of the stock begins to advance.

(3) After the year is over the unfilled orders

also increase sharply.

(4) In 1906, 1909, 1912 and 1917 the high price of the stock and the high record of orders came at practically the same time.

(5) The diagram gave no positive indication as to when the end of these advances was im-

minent.

If the investor based his operation on unfilled orders alone, he would naturally buy U.S. Steel stock in 1904, after unfilled orders had remained at a low level for about six months, and the price had begun to show an advancing tendency. The price of the common stock was then about \$20 a share.

In 1906 the rapid advance in orders and the sharp price movement, together with the excited speculation which then existed, would be likely to convince him that such a pace could

not be maintained.

Morever, in 1906, Steel common paid only 1½ per cent. dividends and sold at a high price of 50¼, while the preferred, paying 7 per cent.,

touched 113¼. These prices were evidently high for industrial stocks paying no greater dividends than those mentioned, which had sold within three years at 83% and 493/4, respectively. Ordinary business prudence would counsel the investor that the immediate period of growth for these stocks was near its culmination, and that the conservative course would be for him to dispose of them and look about for another opportunity.

Early in 1908, our investor, again applying the same principles, would buy Steel common at perhaps 40 or 45, and somewhere before the high price of 94% in 1909, he must certainly have concluded that his stock was high enough for its dividends and prospects, especially as unfilled orders were following but sluggishly.

In 1911, he would perhaps have bought at about 60, and in that case would have seen his stock decline to 50 on his hands; yet during the following year it sold above 80 in spite of the government suit, proposed tariff reduction and the general scarcity of capital.

The report for the last quarter of 1912 showed that the upward trend to conditions in steel industry which had been in operation for nearly two years had at last begun a reversal. The success of the Democratic party

at the polls, on its avowed intention to revise the tariff radically downward, was another big factor which could hardly have been overlooked at the time by any wide-awake investor. The steel industry was built up in this country largely as a result of the generous protection given to it by tariff preferences. Any serious disturbance of that protective security was bound to have a depressing effect upon the industry itself, and a decline in price for steel shares would naturally be expected to follow. The investor who bought Steel around 60, in 1911, would not necessarily have held it until 1913. He had reason enough for selling it as soon as the outcome of the presidential election of 1912 was known. If he, however, held on until the publication of the unfilled tonnage report for the last quarter of 1912, which was available in the latter part of January, 1913, he would have found reason enough, in the falling off of these figures as against those for the third quarter of the same year, for selling.

Following the actual passage of the new tariff schedules which, in the case of steel products, were radical reductions, the steel industry entered into another period of severe depression which continued for about two years, and at no time throughout the period

would the investor, who was carefully watching the situation, have noted any definite indications which would have warranted him in

turning to the buying side of Steel.

There was a constant decrease in unfilled tonnage figures, with but one small recovery, until the end of 1914, when a small increase over the previous quarter was indicated. The improvement was perhaps not sufficient to prompt action on the part of the investor, but when the figures for the first quarter of 1915 came to hand, showing an increase in unfilled orders of approximately 400,000 tons, he would certainly be justified in examining the general situation very closely to note if the time had not arrived to take action. The situation he would have found, had he done so, was a typical one as far as the general principles of investment as here given apply. At the January meeting of the Board of Directors of the Steel Corporation, the dividend on the common, which had been reduced in 1913 from the former rate of 5 per cent. annually to 2 per cent., was passed entirely. This action had precipitated a large volume of liquidation among discouraged holders of the common issue, and this selling grew to such proportions and was apparently so insistent that the Board of Governors of the Stock Exchange deemed it advisable to establish several successive minimum price levels for the stock, the final price level being 38, below which it was not found neces-

sary to go.

It seemed that a situation had arisen which had crystalized opinion unfavorably to the future prospects for steel. Yet, the unfilled order figures had already begun to show an inproving tendency. The second quarter produced a still more marked improvement and the trend thus established continued to assert itself in a series of wonderful quarterly increases which set new records far beyond anything attained

in the past.

The investor who was consistently following the principles herein outlined would certainly have taken advantage of the favorable opportunities presented by the urgent public selling of Steel in the early half of 1915. That things were looking up in the industry could have been plainly seen from the increase in unfilled orders. Whatever the nature of the new demands for steel there was no doubt about their genuineness, and although the prices prevailing for steel products were very low, the demand could not continue to increase for any long period of time without producing a corre-

sponding increase in price for the commodity. Increased demand at increasing prices was quite certain in time to produce increased earnings, and that, of course, meant a return to a dividend basis for the common stock.

Where the investor would take his very large profit in the tremendous war activity of 1916 and 1917 is problematical. By the last quarter of 1916 it was clear that the price of the stock had responded very substantially to the rise in unfilled orders, and most investors would perhaps be satisfied with the profits then available; but if they were not, still another opportunity was offered them to sell at very high prices in May and June, 1917.

The principal point I desire to emphasize in this connection is the general method of study suggested. There are three steps in this

method:

First, a careful consideration of the circumstances surrounding the business of whatever company you are studying.

Second, a systematic examination of the statistics which portray these circumstances

most clearly.

Third, the working out of a common-sense way of taking advantage of the facts brought out by your study.

Such a method would never be fast enough to suit the speculator but it will enable the conservative investor for profit to seize many favorable opportunities.

CHAPTER VIII

HOW INDUSTRIAL STOCKS GROW

MONG the great variety of industrial companies whose stocks are now available to the investor, some are growing, some are standing still, and some, doubtless, will go downhill.

Is there any practical way in which the average investor, without the time or facilities for an exhaustive study of all the conditions surrounding each one of these companies, can distinguish those which are growing from the others?

The average conservative investor gets a fair interest return on his money. He buys securities which have become "seasoned," which are well regarded by bankers and bond houses generally, and which appeal to him as thoroughly sound. He tries to keep himself constantly in a safe position. He distributes his funds among various securities, so that if one disappoints him there is a fair chance that another may do unexpectedly well and thus give him fair average results.

But the exceptional investor, who accumulates a comfortable fortune as the years pass, is the one who has the "knack" of selecting securities which will gradually rise in value as

well as return a good income.

The average price of any stock during a period of years reflects its actual value with considerable faithfulness—but the price at any particular time may vary widely from that value. This is often due to speculative conditions. Those who try to anticipate the immediate future of prices are frequently mistaken in their calculations, so that they are willing to pay too much for a stock or to sell it too cheaply.

Again—and perhaps this is the most important cause of the differences between prices and values—investors place too much weight on current dividends. So long as a rapidly growing company does not raise the dividend rate on its stock, the piling up of value behind the stock passes unnoticed or is not adequately reflected in the price; and so long as a company which is on the downhill road continues to pay the usual dividends, the decline in its potential earning power is not fully appreciated.

What is this "value" that we talk about so glibly? It represents the capitalized earning power of the assets behind the stock. Big

assets do little good unless they are of such a character as to bring increased earnings. Big earnings which are merely the result of accidentally favorable conditions are pretty sure to be temporary and are therefore relatively unimportant. But growing earnings which are based upon a constant increase in the productive assets behind the stock are of the very highest importance.

A company which is constantly plowing back into its assets a considerable part of its earnings each year is building for the future.

Suppose a steel company earns an average of 15% annually on its stock for five years. It could pay 12% yearly dividends and retain 3% in the business, or it could pay 5% and retain 10%—using the 10% to enlarge its capacity. In the latter case its capacity would increase 50% in the five years. If its average profit per ton of business remained the same, and if its common stock constituted half its total capitalization, it would then be earning 30% annually on the stock. It could then pay 12% dividends and still continue to plow in nearly two-thirds of the earnings for the stock.

Moreover, this plowing in of earnings is the best possible evidence of the health of the company. If it is customarily earning enough so that it has a good surplus available to be plowed in, there is a strong probability that the sums thus reinvested will also show good earnings. It is easy enough to invest money in a company in such a way that earnings will not be increased much by the additional assets. But the company which, starting with one talent, earns another talent and reinvests it in the business, is pretty likely to show good earnings for the two talents—a good deal more likely than if it had borrowed the second talent from its bankers.

So plowed-in earnings are valuable not only for the increased assets they put behind the stock, but for the light they shed on the efficiency and conservatism of the management.

The easiest way to make clear the full significance of the reinvestment of earnings is to take a few examples of well known companies, some of which have followed this policy while others have not.

A table herewith compares General Chemical and Pressed Steel Car in this respect. The annual surplus on each stock after payment of all dividends—that is, what the company had left over each year for reinvestment in the business—is shown in the form of per cent on the stock, together with current dividends and the

INVESTING

SED STEEL CAR	Price	Range	43-65	16-57	17-45	30-56	25-52	25-38	29-41	18-36	27-46	25-78	42-88	49-83	55-73
	Year's Surp.	Stock	17.3%	13,3	5.8 def.	7.7	5.6	0.1	0.8	7.6	0.1	3.6	10.7	3.0	16.8
PRESSED		Divs.	:	:			:	:	:	3%		•	41/4	7	73%
GENERAL CHEMICAL	Year's Surp. in % on	Cash Divs. Stock Stock Price Divs. R'nge					. 5 14.5 10%		6 15.7 5	11 8.2	11 7.7	6 38.3 15	6 80.8 20	10 1/2 44.7 5	101/2 26.5
		Cas	1906	1907	1908	1909	1910	1911				1915	1916	1917	1918

yearly range of prices.

In 1906 and 1907 Pressed Steel had larger surpluses for reinvestment than General Chemical, but thereafter the contrast between the two companies is very sharp. From 1908 to 1918 inclusive General Chemical plowed in about 370% on the stock which was outstanding at the beginning of the period, while Pressed Steel plowed in about 50%.

As a result of stock dividends, the holder of 100 shares of Chemical in 1908 had 175 shares in 1918. A hundred shares of Chemical at the mean price of 1908 would have cost \$5,750, and at the mean price of 1918 would have been worth about \$30,600, in addition to a very liberal cash income return throughout the entire

period.

The same sum, \$5,750, invested in Pressed Steel in the same way would have been worth about \$11,825 in 1918, with an average of 2% dividends annually, or an income return of a little over 6%.

The investor in General Chemical would have had approximately three times as much money at the end of the time as the investor in Pressed Steel Car.

General Chemical's net income in 1916 was \$12,287,000 against \$2,140,000 in 1909; in the

same years Pressed Steel's net was \$2,751,000

and \$1,835,000.

A very interesting point in connection with General Chemical was the length of time that elapsed before the price responded to the continual plowing in of profits. If a stock is legitimately worth 100, and 10% on that stock is turned back into the business and expended on assets, it is plain that the stock should then be 110.

Let us apply this principle to General Chemical and compare the theoretical annual values of the stock thus obtained with the prices at which it actually sold. In this case the calculation is complicated by the frequent stock dividends. I will therefore compare the value of the original stock outstanding in 1906 to the holder who retained it throughout the period, as measured by the mean price of the stock each year, with the theoretical value of that same stock as based on the amounts plowed in from year to year.

Without taking up space to present the cal-

culations, the net result is as follows:

Mean Market	Value.	Theoretical	Value.
1906	78	<i>7</i> 8	
1907	$62\frac{1}{2}$	86	
1908	571/5	95	

1909	. 78	101
1910	. 1011/2	113
1911		124
1912	. 204	136
1913	. 215	150
1914	. 206	158
1915	. 318	165

This assumes that the mean price of 78 in 1906 was a just valuation of the stock at that time. Then the theoretical value from year to year is obtained by adding on the amounts plowed in, while the mean market value is the worth of the original stock to the holder on the basis of prices actually quoted in the market.

It will be seen that it took the market about four years to wake up to the real facts. Even in 1910, after \$35 per share had been plowed in, the stock sold as low as \$93, or 20 points below its actual value on the basis of the 1906 price. But once the true situation was realized, the stock came forward with a rush and sold a good deal higher in proportion to the productive assets behind it than it had sold in 1906. In other words, the possibilities of the company had been greatly undervalued down to 1911, when the public woke up to the company's real prospects.

Yet it would seem, as we look back upon it, that the value of the stock should have been apparent much sooner. The year 1908 was one of general depression. Industrial earnings were small and many dividends were cut. But in that depressed year General Chemical earned almost double its dividends, which had been raised from 2% to 4% in 1907, and in 1909, a year of only moderately good general business conditions, earnings mounted to almost four times the 4% dividend.

A second table shows a comparison between Goodyear Tire & Rubber and General Cigar. The latter has paid its 4% dividend regularly and has shown remarkable stability of earnings—but it has grown slowly, and therefore growth has not been reflected by rising prices for its stock. Goodyear at the start was a close corporation, so that quotations for the stock before 1912 cannot now be readily obtained; but if we assume 250 as its value in 1911, that same stock would have been worth about four times as much in 1918. In 1914 and 1915 the stock sold far below its indicated actual value, as based on earning power and the actual amounts plowed back into assets.

GENERAL CIGAR GOODYEAR TIRE & RUBBER

Price Range	57-90	38-73	47-65	40-50	39-50	42-67	42-64	30-47	34-58
Year's Surp. in % on Stock	4.0%	1.0	2.6	2.4	2.6	2.2	1.3	1.4	3.2
Divs.									
Price Range			239-404	279-443	168-250	190-345	198-402	136-281	132-240
Stock Divs,	100%	:	100	:	20	:	100	:	
Year's Surp. in % on Stock	141.9% 124.3	41.5	40.7	21.6	25.0	37.1	47.4	55.5	52.5*
Divs.	12% 12	12	12	12	12	21	12	12	12
Cash	1909 . 1910 .	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.

*Subject to Federal taxes.

General Cigar illustrates the fact that a moderate surplus above dividends every year is always necessary to maintain reserves and to make such ordinary improvements as are practically essential to keep the business on an even keel.

It is always a question of bookkeeping whether expenditures shall be charged to "maintenance and depreciation" or to "additions and improvements." Maintenance is a very elastic term. What one manager would consider adequate maintenance might be considered entirely inadequate by another. In cases where a company wishes to keep its apparent earnings at a moderate figure, unnecessarily large amounts may sometimes be charged off to depreciation. But as books are usually kept, any company needs a moderate annual surplus above dividends.

The point to be observed by the investor for profit is the combination of liberal earning power with large annual surpluses above dividends. That is a sure sign of a growing com-

pany.

CHAPTER IX.

BUYING STOCKS IN DULL TIMES

HERE complete statistics are not available in regard to the earnings of a stock from month to month, or even quarterly, it is more difficult for the investor for profit to see his way clearly. Yet if he is watchful for opportunities he will in many cases be able to form a sound opinion as to the early future of numerous companies.

The year 1908, for example, afforded many opportunities to buy industrial stocks at low prices. How could the investor select the best stocks for his purpose—that is, the stocks which

were likely to have the best advances?

Turning to the "Bargain Indicator,"* which appears in The Magazine of Wall Street, we see that in 1908, a year of general depression, very few stocks earned more than in preceding years. In many cases the falling off was very sharp. United States Steel common earned 15.5% in 1907 and only 4% in 1908; American Smelting & Refining, 12.8% in 1907 and 7% in 1908; National Enameling & Stamping, 6.7% in 1907, compared with a deficit of 2.1%

^{*}Now entitled "Industrial Earnings and Dividends."

in 1908, and so on with many others.

The exceptions to this rule of declining earnings are naturally worthy of particular attention. In some cases there may be special reasons for these exceptions; but as a general proposition we may say that any stock which could increase its earnings in a year when most other companies were showing sharp declines, would be likely to prove a good stock to own. The first example in the "Bargain Indica-

The first example in the "Bargain Indicator" referred to is American Malt Corporation preferred, which earned 10.6% in 1908, against a deficit of 4% in 1907 and earnings of 2.8% in 1906. Referring to any one of the standard investment manuals, we find that this company was incorporated in 1906 as a holding company to take over the stocks of the American Malting Company, which had been a non-dividend payer for years. The earning power of the corporation was not sufficiently well established to warrant the investor in purchasing.

The International Harvester Company earned 7.8% in 1908, against 6.5% in 1907, and 5.1% in 1906. This was really a remarkably fine showing. We also find, on looking the company up, that it was setting aside yearly about one quarter of its income for various re-

serves—insurance, renewals, pensions, depreciation, contingent losses, etc. Dividends had

not then begun.

We would be justified in assuming that here was an exceptionally good stock to buy. The annual reports were complete and satisfactory, and the gross business of the company was growing rapidly year by year. The large earnings must soon be distributed in dividends, or if not distributed they would pile up into a surplus which would result in much higher prices for the stock.

International Harvester Company sold as low as 52 in 1908 and 62 in 1909. In 1910 a 331/3% stock dividend was declared, with a 4% cash dividend on the whole capital, thus increased. In April, 1911, the stock was put on a 5% basis. The high point for the stock

was 1293% in 1911, and 1267% in 1912.

The next stock on the list to show increased earnings in the depressed year of 1908 was United States Realty & Improvement—7.7%, against 6% in 1907 and 4.8% in 1906. The company was incorporated in 1904 and controls the George A. Fuller Construction Company, Plaza Hotel Operating Company, and various other New York realty enterprises. In 1908 it was a standard company doing a grow-

ing business. Dividends of $4\frac{1}{2}\%$ were begun in 1908, $4\frac{1}{4}\%$ was paid in 1909, and 5% from 1910 to 1914. The stock rose from $36\frac{1}{4}$ in 1908 to $86\frac{1}{2}$ in 1912.

Here was another stock which had exceptionally good prospects, as shown by its annual earnings and general business outlook. All that the investor needed was our old stand-

ard prescription, common sense.

Corn Products, then a new company, earned 8.5% on its preferred stock in 1908, against 7.2% in 1907, but was not well enough established to be attractive. Also, this company's fiscal year then ended Feb. 28, so that 1908 earnings were all made in 1907, with the exception of two months.

National Biscuit earned 8.1% in 1908, 7.6% in 1907, and 7.1% in 1906. The fiscal year then ended Jan. 31, so that 1908 earnings were mostly made in 1907, but the following year showed up almost equally well at 7.4%. Dividends were 4% in 1905, 5% in 1906, 53/4% in 1907, and 6% in 1908. The company was very ably managed and its business was growing steadily.

The investor had an opportunity to buy this stock at 68 in 1908, and even the highest price for that year was only 97. Dividends were further increased and the stock sold at 161 in

1912.

A similar increase in earnings under generally unfavorable conditions was shown by People's Gas Light & Coke—6.9% in 1906, 7.6% in 1907, 8.4% in 1908. This company has a perpetual charter of a broad character and growth of the city of Chicago is behind its earnings. On the other hand, municipal regulation of the price of gas is an obstacle to increased profits. Dividends had been paid regularly since 1897. In 1908 the stock sold between 80 and 106½, and in 1912 between 103 and 122½, the dividend in the meantime having been raised from 6% to 7%.

American Telephone & Telegraph earned 10.1% in 1908, as compared with 9.0% in 1907, and 8.2% in 1906. The great strength of this company is too well known to require comment, and its earnings in 1908 were a splendid testimony to its independence of industrial reactions. The price in 1908 swung between 101 and 1325%, and in 1911 the stock sold at 153.

The dividend has been 8% throughout.

Utah Copper earned 23.3% in 1908, against 5.9% in 1907, when it was just starting operations. The investor would not have cared to buy this stock unless he knew something about the value of the mines and prospect for

earnings. At that time the average investor

did not know much about these points.

We have since come to understand that a porphyry copper is a manufacturing proposition, and that ore supplies may be very definitely estimated, without the uncertainties that exist in other mining enterprises. It is unnecessary to say that if the investor had sufficient information in 1908, so that he could feel confidence in Utah's future, he would have made splendid profits by purchasing its stock. It sold at 20 in 1908 and at 67 in 1912, while in 1916, on account of the great demand and record high prices for copper metal, Utah sold as high as 130.

American Car & Foundry earned 23.8% in 1908, against 20.1% in 1907 and 4.5% in 1906. It is characteristic of equipment companies that their periods of big earnings are always six months to a year behind those of most other companies. This is noticeable likewise in American Locomotive's earnings. Moreover, the Car & Foundry fiscal year ends April 30. Hence these big 1908 earnings were really

chargeable to 1907 business.

Earnings on Car & Foundry dropped off very sharply in 1909 and did not fully recover until the war order period of 1915-1916. Never-

theless this stock sold at $25\frac{1}{2}$ in 1908, rose to 76½ in 1909, and ranged from 49¾ to 63¾ in 1912. In 1908 it was paying 3%; in 1913 it

paid 2%.

The investor would not have bought this stock unless he had acted without a full understanding of the conditions; but if he had bought it he could easily have secured a satisfactory profit within a year. The wide fluctuations in the earnings of equipment companies are well understood by investors, so that the price of the stock was not affected as much as would be the case with a railroad, for example.

It is to be borne well in mind that it is increased earnings in a year of depression that gives the warrant for buying the stocks of a company on this plan. In a year of increasing business, enlarged earnings would not have any such significance. That is the time when all stocks should be showing better results.

The investor for profit is looking for bargains. Hence he must buy at relatively low prices. When the big earnings appear in a period of booming business, it is much more likely to be time to sell out than time to buy.

Value of the "Bargain Indicator"

The great advantage to an investor of having recourse to such a classification table of investment opportunities as is regularly furnished in The Magazine of Wall Street, in the form of its "Bargain Indicator," both of industrials and railroads, is strikingly shown in the case of the stock Bethlehem Steel common, which during the two recent years of depression, 1913 and 1914, was one of the few corporations which was able to show an increase of earnings.

In spite of this increase, which in both years was really notable, the price of the stock, on account of the generally reactionary tendency of the market, and later on account of the outbreak of the war, did not get above 47 during either year, and sold as low as 30 in 1913 and down to 25 in 1914. The "Bargain Indicator" published in the early months of 1915, showed that the stock had earned per share 6.6% in 1910, 6.8% in 1911, and 6.9% in 1912, and during that three year period had sold as high as 51. In the year 1913, earnings increased to 27.5%, and for 1914, 32.6% was earned. The investor needed to know no more. It was his cue to buy for the "long pull," and his opportunity did not get away from him until the sensational advance to 600 began in 1915. Of course, it was the abnormal situation in earnings brought about by the war which made that price possible, but it is also a solid

fact that long before the war was thought of Bethlehem's profits had begun to increase sharply, and the price of the stock had not res-

ponded to the betterment in earnings.

Another illustration of the value of such timely comparison is furnished by General Motors common stock, which for many months headed the industrial bargains in the monthly tabulations. This corporation was organized in 1908, and failed to show a surplus available for dividends on its common stock for the years 1909 and 1910. In the following year 15.7% was earned, 17.3% in 1912, 38.8% in 1913, and in 1914, during which most industrials were utterly depressed and deficits intead of surpluses were the rule, 37.5% was earned for the common. The stock did not begin to discount this remarkable earnings showing until the month of March, 1915, when it crossed par for the first time. From there on the advance was both continuous and sensational, reaching top figure at 850 in 1916. In 1913-1914 it fluctuated between 25 and 99, and the investor would have had little difficulty in picking it up to put away around 50.

The above examples are but two out of a great number of excellent investment opportunities which the "Bargain Indicator" has

called attention to since that feature was first introduced in The Magazine of Wall Street.

Mining Stocks.

The average investor will not wish to do much in mining stocks, because, from the very nature of the business, it is rarely possible to estimate with any accuracy future profits from the mines. Mining—aside from some of the porphyry copper enterprises—is not a business; it is a form of exploitation. A mining company simply takes metal out of the ground and distributes it in form of dividends to the owners of the mine. When the ore gives out, the dividends give out also.

Hence an investor in a mining stock must always be, in a sense, an investor for profits, as his company does not earn dividends in the same way that a railroad or an industrial cor-

poration earns them.

The time to buy mining stock is when it is an assured prospect, and the time to sell is when the dividends are at their height. An experienced mining man lays down the following rules for the buyer of mining stocks:

(1) A mine must be well located in an ore-

bearing district.

(2) The investor must know that the man-

agement of the mine is both capable and honest.

- (3) Buy when the company is in the prospect stage, before it begins the payment of dividends.
- (4) When you can double your money, sell out, even though large dividends are then being paid. You may get only a fraction of the possible advance, but you will have a big profit and you will have your capital in hand and be ready for something new.

CHAPTER X

HOW TO INTERPRET THE ACTION OF THE MARKET

OW much attention, if any, should the investor for profit pay to the stock market from day to day or from week to week? Has he anything to gain from watching current fluctuations and volumes, or studying the general behavior of the market?

We may answer at once that he should pay relatively little attention to these things. Earnings and values, growth of population and of business, dividends and money rates, political conditions and the accumulation of capital, are of far more importance and significance to the investor than any indications he can draw from the temporary and often erratic fluctuations of prices.

Yet this question of the action of the market should not be entirely ignored. It is a wellknown fact that some professional speculators are able, by carefully watching the technical indications derived from a study of volumes and prices, to make more money during the

year than they lose.

This is very far from being the ideal of the investor for profit. He wishes to keep him-

self always in a safe position, and his first concern is a satisfactory interest return on his money. But the above fact does show that the action of the market is a subject worthy of some attention in connection with, but strictly subordinate to, other more important matters.

What are the elements with which the student has to work, in endeavoring to interpret the action of the market? This is a point on which even those who are constantly in touch with the technical situation are apt to have only a hazy and indefinite notion.

Reduced to its lowest terms, the action of the market includes three basic factors:

(1) Price.

(2) Time.

(3) Volume, that is, the number of shares bought and sold at a certain price or during a certain time.

Each of these three factors may be recorded or used in different ways, and the three. or any two of them, may be combined according to

different plans.

Without going into the numerous ways in which these factors are recorded and studied by speculators, a few practical observations may be offered which will be of use to the investor.

First, no important conclusions can be obtained from any one of the three factors, taken alone. It is the varying relations between two or three of them that serve to give the market a sort of character of its own.

Second, the element of time should always be included. Attempting to draw conclusions from a combination of prices and volumes, without reckoning in the lapse of time is, in my opinion, unsatisfactory.

Third, a study of time and volume without prices would be meaningless, as the investor

cannot buy or sell except at some price.

These principles simplify matters somewhat. There are, in fact, only two combinations left: (1) Price and Time; and (2) Price, Time and Volume.

In many markets volumes are not recorded. They are not obtainable in any of the English markets, either for stocks or for commodities, so far as I am aware. They have never been recorded on the Chicago Board of Trade. They were formerly sent out on the cotton tickers, but the practice was discontinued some years ago, as the market got so big that it was very difficult to keep track of them.

Even in the New York Stock Market there is a good deal of inaccuracy about the record-

ing of volumes, and the totals as figured up by the ticker companies and newspapers can be accepted as approximate only; but the errors (aside from occasional clerical or typographical mistakes) are not great enough to interfere seriously with any conclusions to be drawn.

Almost all investors glance over the stock list in their morning papers to observe the general movement of the market, and notice the total transactions for the day; but if they depend only on their memories for past prices and past volumes, and for the time that has elapsed since those prices and volumes were recorded, they fail to get any adequate idea of the action of the market. It is desirable, and, in fact, almost necessary, to keep some brief record from day to day, or at least from week to week.

The most practical way to do this is to make a simple "graph" of the average of the prices of a considerable number of prominent stocks, usually twenty or more. The investor records each day the average of the high prices of all the stocks selected, the average of the low prices, and the average of the closing prices. Several daily papers compute and publish such averages daily, to save work for their readers.

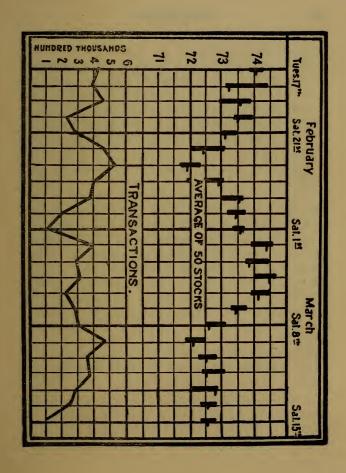
One of the best is found in the New York *Times*, which averages twenty-five railway stocks, also twenty-five industrials, and then combines the two into an average of fifty stocks.

A simple way to keep this record is to use paper ruled into small squares, placing the scale of prices at the left and the dates day by day at the top. Then a short line is drawn under each date, extending from the point on the scale representing the average high price to the point for the average low, with a tick on the right side of the line showing the average closing price.

The accompanying illustration will make

the meaning clear.

Since only two factors can be recorded on a graph by a single line, it is necessary to add another line along the bottom of the chart to represent the volumes. For this purpose it is best to use the total sales for all stocks, whether included in the averages or not, as what you want is a general picture of the whole market, as nearly as it can be obtained. A scale of one hundred thousand shares to the space, at the lower lefthand corner of your chart, enables you to carry a continuous line across the paper showing the variations in the total transac-



tions from day to day.

Individual stocks can, of course, be handled in the same way if desired, but the investor will not usually care to bother with these, as he will select his stocks on the basis of earning power, interest return, etc. What he wants to get from his graph is a general view of the entire market.

When he has his graph, what can he get from it?

He is chiefly interested in the highest prices and the lowest prices over a period of a year or two as he has no intention of trying to catch intermediate speculative fluctuations. Are there any distinguishing features of the market at these grand turning points?

Common sense tells us that the lowest prices are likely to be made when the most people are trying to sell, and the highest prices when the greatest number are anxious to buy. We shall expect, then, that the volume of sales will be relatively large at the top and the bottom, and this conclusion is borne out by history.

A heavy trade in stocks is pretty sure to be accompanied by relatively wide fluctuations in prices—the whole market gets bigger, in every way. So we find that at these turning points

the range of prices for the day, as shown by the length of our lines on the graph connecting the average high with the average low,

will be relatively wide.

After a period of heavy selling pressure, buyers are not likely to rush in the moment the selling ceases. They fear a renewal of the liquidation, and will only begin to buy gradually, as the market becomes quieter and more settled. Consequently a period of activity—that is, big volumes and wide daily ranges—at low prices, is usually followed by a time of dullness without any very great change in the general level.

The same principle, of course, applies after great activity at high prices; but the period of activity may be longer and the period of dullness shorter than at the bottom, because speculation is naturally broader at high prices and the public participation in the market more

general.

The mistake must not be made of supposing that the action of the market alone will indicate the top and the bottom. It will not. Conditions will determine those points, and the investor will often be misled if he tries to depend solely on the principles mentioned above.

To illustrate, the market may decline sharp-

ly to a low level, with big volumes and wide ranges, and then turn dull. But this does not tell us whether prices will not later fall to a still lower level, with still heavier volumes and still wider fluctuations. Something of this kind happened in 1907. After the "Silent Panic" of March, the observer might have imagined that bottom had been struck, but the conditions which caused the decline had not been cured. A still greater smash, in October, 1907, was necessary to lay the foundation of a new bull market.

These periods of extreme prices and big markets come only occasionally. In the meantime, can the investor draw any conclusions as to the "trend" of prices? He must be very cautious in endeavoring to do so. This is a difficult art, and few have the time or the special talent to master it.

Probably the best indication of the trend of the market that is easily available to everybody, is found in the comparison of the total volume of trade on days when the market moves sharply upward, with the volume on declines. In a bull market, buyers come in on the advances. In a bear market, they refuse to do so. In a bear market, holders are urgent to sell on declining prices. In a bull market, they

hold on stubbornly.

The result is that, in a bull market, the volume of trade is likely to increase on the advances, while in a bear market it will probably become heavier on declines. But this principle can only be interpreted and applied to the market by long study and careful observation. The novice finds many stumbling blocks.

One of them is that he is almost sure to lay too great weight on small movements, caused only by professional operations. Professional traders make prices temporarily, but they have very little influence on the general trend of prices over a considerable period. They are merely trying to follow this trend, not to make it. The attitude of investors creates the trend, and no useful indications as to its direction can be gained from fluctuations caused only by professional speculators.

Another point is this: Increased public buying, causing a larger volume at higher prices, is a characteristic of a bull market; but if this is followed by decreased volumes on a reaction, nothing is shown except the cessation of buying—there is no guaranty that it will be renewed, though perhaps there is usually some probability that it may be. And a similar principle applies, of course, to a bear market.

One other observed fact in regard to broad market movements may be mentioned, as possibly of some service under certain conditions. After a prolonged period of dullness the investor may often be in doubt as to the next probable move. The market may be in a state of balance, and merely awaiting a new impulse, which may be in either direction.

In such cases, the first sharp move on increased transactions is likely to be continued for some distance. The reason of this is that speculators, tired of inaction, will follow the new lead until they see some signs of its be-

coming exhausted.

This little point is sometimes useful to the investor. For example, he might consider prices relatively high and might be hesitating whether to take his profits or wait for a further advance. Under such circumstances, if a stationary market suddenly turned weak on larger volume of trade, he would perhaps accept this as a warning that the time had come to turn his stocks into money.

The investor will be positively injured by any study of the action of the market if he allows himself to be diverted from his original purpose and led astray into the byways of speculation. Active trading in stocks is a vo-

cation, and a very exacting one; but investing for profit may safely be followed as an avocation, with only a moderate amount of attention.

Trying to mix active trading with investing is as bad as mixing drinks.

CHAPTER XI

WHAT TO DO WITH IDLE MONEY

THERE will of course be times when the investor for profit cannot see any attractive opportunity for the use of his money in stocks or bonds. He may feel that the general financial situation is so doubtful that even the best of securities may be pulled down with the others; or he may be able to find plenty of good, growing companies, in which he would gladly invest at lower figures, but the market may be at such a high level that he is unwilling to pay current prices.

In such cases he will find his money temporarily idle and the question at once arises, what is to be done with it pending the development of a suitable opportunity for re-invest-

ment?

It is easy to exaggerate the importance of this question. Even supposing his money lay in a bank without any interest for a year, the loss of interest could hardly be figured at more than 5 per cent., and if as a result of this delay the investor was able to buy some standard stock ten points lower than he could have bought it at the time his money was first released, his profit from the transaction might reasonably be considered as twice the amount of the interest lost.

We have, however, laid down the proposition that the investor for profit should consider safety and rate of interest first, and then should make whatever additional profit he can as opportunity arises. If he places profit first he becomes practically a speculator and much that has been included in these chapters would

not accurately meet his requirements.

The first point that naturally occurs to us is that 2 or 3 per cent., and in some localities 4 per cent., can be obtained by placing idle money in a trust company, rather than in a national bank. In New York it is difficult to get more than 2 or $2\frac{1}{2}$ per cent. on checking accounts from the strongest trust companies, but in many outside cities 3 per cent. is easily obtainable, and in the newer sections of the country 4 per cent., and in some cases even more.

Good private banking houses in New York City pay 3 per cent. on checking accounts, but the investor will not care to place his funds with them unless he has a pretty good knowledge of the men in charge. Some private bankers are as sound as any trust company and

may be even more conservative in the handling of their funds, but the difficulty for the ordinary investor comes in separating the sheep from the goats. For such a trifle as ½ or 1 per cent. yearly he cannot take any chances whatever.

No one can afford to place his money with the trust company or the private banker offering an exceptionally high rate of interest. The high rate would not be offered unless there were some reason for it, and that reason usually is that the concern has difficulty in getting money at the current rates paid by other houses similarly situated. In other words, they are not fully trusted by those having large capital at command; and if that is the case they certainly should not be trusted by those whose capital is smaller.

The instance comes to mind of a large New York trust company which advertised a few years ago for checking accounts, offering about half of 1 per cent. more interest than would usually be paid on such accounts. A year or two later the company was in the hands

of a receiver.

Still more recently a national building and loan company advertised rather widely offerabout half of 1 per cent. more interest than

paid by others. It had been doing this for five years or more; but the time came when the State banking department refused to permit it to continue longer in business owing to the insufficient security behind its borrowings. To any one understanding the business of a building and loan association, this additional one-half per cent., in the circumstances under which it was offered, was like a red flag.

If the investor has any considerable sum—say \$10,000 or more—of idle money, about the only way he can get better than trust company interest on it is to put it into commercial paper, short term notes, or bonds that mature at an

early date.

The objection to this is that he never knows just when a big decline in the market may come which would put prices on a plane where he would want to buy stocks or bonds. It might happen that just at the moment when he wanted his money to invest, it would be tied up in short term notes, and when the notes matured the opportunity might have passed.

In any ordinary market, however, he could use his notes as collateral with his broker or trust company for the purchase of the stocks or bonds wanted. As he would buy outright, not on margin, he would simply be transfer-

ring his funds from the short term securities into others. At even 60 per cent. of their value the notes would give him a credit of 60 per cent. on the stocks he wants to buy. This would, of course, be ample under any ordinary circumstances.

Once or twice within the last twenty-five years there have been intervals of a few days when it would have been difficult to get brokers to accept any collateral whatever, no matter how gilt edged, because it was practically impossible for them to borrow money on any terms. As a rule, however, the investor would prefer, in these exceptional cases, to wait until the extreme pinch of panic was over before buying, even if he had to pay a few dollars more per share for his stocks.

He can't expect to buy at the bottom. The attempt to do so would be likely to result in his buying too soon and having to stand a further decline. And even if he were to make up his mind beforehand to jump at the very worst moment of the panic—or what he thought to be the worst moment—the lhances would be 100 to 1 that when the time came he wouldn't

have the courage to do it.

The fact is that when the investor appears at his broker's office with a perfectly good \$10,000

short-term note in his hand and says, "I want you to take this and buy me \$10,000 worth of sound investment stocks," the broker is going to leave no stone unturned to finance the deal. It may be questioned whether most brokers wouldn't have managed it somehow, even in the darkest days of 1907.

In the selection of short-term notes, commercial paper, or long-term bonds having an early maturity there is a wide range of choice, and consultation with your banker or brokerage house is desirable. The rate of interest obtainable will generally be from 4½ to 6 per cent., though there are times when 7 per cent. can be had.

Quite recently the holding company idea has been applied to commercial paper. Companies have been formed to buy two-name paper of many different firms and to issue on this paper as a basis, their own collateral lien notes at perhaps one-half per cent. less interest, having practically any date of maturity desired by the purchaser. This distributes the risk in such a way as to make the notes exceptionally good—assuming, of course, that the central company is honestly and competently managed.

In this matter the small investor has an advantage over the larger one, because the

amount of money he will wish to withdraw when he is ready to buy will be relatively unimportant to the institution which parts with it. He will therefore have less trouble in getting it promptly under conditions of financial stringency. He can also advantageously make use of two classes of institutions which have been created for the special benefit of the man whose capital is limited—the savings banks

and the building and loan association.

Even the investor with \$10,000 or more can use the savings banks and building and loan associations by distributing his money about in half a dozen or a dozen different institutions, so that the amount to be drawn from each one when needed would not be so large as to require notice before withdrawal. Such a distribution of funds has the advantage of greater safety, as the loss from the failure of some one institution would be relatively small. It is considerable trouble, however, when the investor wants all his money, to collect it together from so many different sources.

The investor with a few hundred or a few thousand dollars can easily get 4 per cent. interest by placing his funds in two or three savings banks. The thing that may prevent him from doing so is the "sixty-day clause,"

which permits the bank to require sixty days' notice of withdrawals whenever its officers consider that necessary. Under ordinary conditions notice is not required on small sums; but the investor remembers that stocks and bonds sell lowest under extraordinary conditions, so that the sixty-day rule might be enforced just when he wanted his money.

In fact, this was the case in 1907. The savings banks were enforcing this rule, at least nominally, for a month or more after the worst

of the panic was over.

It should be borne in mind, however, that the rule applies chiefly to actual cash. The small depositor who wants his money in the form of a check, for the purpose of buying stocks outright and paying for them in full, can get it in practically every case by using a little persistence. If the cashier has not been given the authority to make any exceptions from the rule, some higher officer of the bank will usually do so if consulted.

The savings banks apply the rule for the protection of their depositors, not to cause them inconvenience. The bank's officers would be likely to frown upon margin purchases, but the real investor, who explains frankly what he wishes to do and wants a check to do

it with, nearly always gets it. The buyer of stocks in a panic is performing an important public service, and the intelligent bank official

will look at it in that light.

Brokers, also, will do everything possible to help the small investor in such cases. If the bank depositor cannot get his money from the bank, the broker will perhaps accept the bank book as a temporary deposit for the purchase of stocks or bonds in a panic. The broker, like the banker, would be likely to discriminate against the buyer on margin at such a time, but he welcomes the genuine investor who wishes to buy outright.

Those building and loan associations which are operated on the savings bank plan, as many of the larger ones now are, receiving deposits and permitting withdrawals as desired, are worthy of more attention in this connection than they generally receive. They pay from 4½ to 5 per cent. interest in the East and higher rates in other sections; and in 1907 no important association, so far as I can learn, was

obliged to limit withdrawals.

This is because the depositors in these associations are not of a class to be easily frightened. Most of the deposits are made with a view to home-building, and depositors who

would wish to withdraw, either from fear or for investment, in times of stringency, are so few in proportion to the whole number that

their requirements are easily met.

Some discrimination must be exercised in regard to such associations. The so-called "national" building and loan schemes—that is, those associations or companies which have charters permitting them to place loans anywhere in the United States—must be religiously avoided. It is impossible for the authorities of any State to oversee their operations, and the national government has never done so effectively. Even the officials of these national companies have often been inadequately informed about their own loans; and in some cases they have apparently tried to see how closely they could balance on the line of fraud without being prohibited the use of the mails.

Local building and loan associations, which can loan only within a restricted territory, have shown a good record for many years. In States where, as in New York, they are under the supervision of State officials, they are as a rule just as safe as the savings banks. Naturally, there can hardly be any better securi-

ty for loans than newly-built homes.

Of course there is nothing to prevent the small investor from buying commercial paper, short-term notes, or early-maturing bonds, just the same as if he had more money. Consultation with the old lot houses will usually put him in touch with something issued in small denominations that will meet his requirements. Some of the companies which issue their own collateral lien notes based on varied holdings of high grade commercial paper, as mentioned above, make these notes in any multiple of \$100.

The best general plan for the disposition of money temporarily idle is doubtless to distribute it in a number of the different ways mentioned above. One-third of your funds might be kept in a trust company or with a private banker at 2 or 3 per cent.; another third in savings banks or building and loan associations, and the last third in short-term notes or

commercial paper.

Such a distribution would contribute to safe ty and conditions could hardly arise which would prevent you from getting hold of enough money and acceptable collateral to make your purchases at the right time.

It may be added that there is no logical reason why you should not "invest" on the short

side of the market at times when you do not wish to buy. But this carries us a little out of the field we have marked out—namely, getting a profit in addition to regular interest. There is no good ground for the popular prejudice against short selling, but the principles to be applied to it are somewhat different from those here discussed.

CHAPTER XII

THE THREE SOURCES OF PROFIT IN BUYING SECURITIES

I N the chapters of which this is the concluding number, I have endeavored to develop the subject in as simple and straight forward a way as possible, avoiding unnecessary technicalities, and yet covering in a fairly systematic manner the most important principles of the science.

The reader has not failed to observe that my chief effort has been to bring this problem of investing for profit down from the clouds, in which it has been enveloped by statisticians, auditors, accountants and many financial writers, and to present it in such a way that the practical business man or investor may apply his natural common sense to the matter of buying and selling securities in much the same manner as he would apply it in the management of his own personal affairs.

In summing up the principles of the science of investing for profit, we see that every opportunity for making a profit in this way must come under one of three different heads:

(1) A transition in the money market from

a high money rate to a low one.

A continued high money rate naturally means low prices for interest-bearing securities. When the conditions that have caused this abnormally high money rate pass away, and money becomes plentiful, it again seeks employment in interest-bearing securities, until the increased demand for these securities gradually lifts their prices to a higher level. The investor can participate in this upward move-ment by buying bonds or high-grade dividendpaying stocks as soon as the money situation takes a turn for the better, after a period of high rates.*

Two methods have been suggested by which such a purchase may be made intelligently:

(a) When a sound security is selling at a price which gives a much larger interest re-turn on the money invested in it than has been usual in the past history of that security, and larger than is usual for other similar securities, owing to a general high rate for money, the investor may buy it with confidence that it will sell at higher prices at some later date, when money conditions become easier.

^{*}This subject is adequately treated in "Tidal Swings of the Market," by Scribner Browne.

Likewise, when a security reaches a price so high that the interest return on that price is abnormally low, the investor will sell, assuming that he will later have an opportunity to

repurchase at a lower price.

(b) By keeping a graph showing the average high, low and closing prices of a well-selected list of stocks, together with the total volume of sales in the New York stock market, he will find the action of the market of some help in forming his opinion as to the best time to invest or to close out his investments. As for example, the period of quiet succeeding a disastrous panic, or dullness after a big speculative boom. The conclusions drawn from this source, however, must be kept strictly supplementary to other considerations and not used as a main reliance.

(2) The second class of opportunities for investing for profit arise from the change from dull business to active business. This follows the transition from high money to low money, but after a considerable interval. The length of this interval cannot be determined in advance. With good crops and quiescent politics the interval may be short, and bad crops or disturbing political conditions may lengthen

it out to several years.

All the methods mentioned above will aid the investor in buying his securities during a period of dull business, which will work out into renewed activity. Low price is, of course, an essential element; and both the money market and the stock market give important help by preceding or "discounting" improved general business. I have also called attention to three other principles which will aid the investor in making up his mind:

(c) Per cent. of railroad operating expenses

to gross earnings (Chapters IV and V).

(d) Advance orders of industrial companies on the books (Chapter VII).

(e) The extent to which surplus earnings

are "plowed in" (Chapter VIII).

(f) Maintenance of relatively high earnings

during dull times (Chapter IX).

(3) The third class of opportunities is found in the selection of the securities of a company which must grow, because of the favorable conditions by which it is surrounded. In this case all of the six methods mentioned above will be applied as tests, either to the general situation or to the particular security under consideration.

In addition, two other methods have been discussed:

(g) Examination of the general conditions surrounding the company.

(h) Study of the statistics covering the past

history of the company and its securities.

Both these subjects were taken up in Chap-

ters VII, VIII, and IX.

The desire of the investor will be to combine all of the above methods, so far as possible, in deciding what and when to buy or sell. He will naturally begin by keeping in mind methods (g) and (h); that is, noticing the general development and progress of leading companies and of different sections of the country, and keeping a brief statistical memorandum of results shown by annual reports, as previously explained.

In doing this, points (c), (d), (e) and (f) will put in their appearance and be duly con-

sidered as a matter of course.

The investor will soon have in mind a number of securities that seem to him to be specially in line for growth, and will plan to buy them—when the right time comes.

In deciding on the right time, he will consider methods (a) and (b). I have explained the necessary graphs, with the principles on

which they are based.

A number of mistakes may be briefly men-

tioned, which should be avoided. One of the most common is becoming wedded to some particular theory or idea, so that it assumes in your mind a much greater importance than it does in the minds of others. It is necessary to consider all the facts impartially and to maintain a well-balanced point of view.

Another similar error consists in being influenced by some personal prejudice, political

or otherwise.

It is a mistake to push a mathematical or statistical deduction to its extreme conclusion. It is, in fact, quite noticeable that the man of mathematical taste and training is not, as a rule, as good a judge of investments as the one of a more practical business temperament. Mathematics lead us to an absolute conclusion provided our premises are assured; but in business or investment studies, the selection of the right premises is the most important consideration.

In general, any extreme conclusion is to be distrusted, for even if it is correct it will not be credited by the majority of investors, and hence will not have its full effect on market prices.

The worst mistake of all, probably, for the simon-pure investor for profit, is to be grad-

ually led into an effort to catch relatively small fluctuations in the market. If you elect to be an investor, stick to your chosen field, no matter what fine opportunities you may imagine yourself to be losing. If you want to speculate, learn how first, and keep your speculations strictly separate from your investments.

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